**BENJAMIN P. SPERRY**

Center for Aquatic and Invasive Plants

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**EDUCATION**

Ph.D. Agronomy - Weed Science, 2019; Mississippi State University, Starkville, MS

M.S. Agronomy - Weed Science, 2016; University of Florida, Gainesville, FL

B.S. Plant Science - Crop Ecology, Soil and Water Science minor, 2014; University of Florida, Gainesville, FL

**CURRENT EMPLOYMENT**

June 2019 - present, Research Assistant Scientist (100% Research), Center for Aquatic and Invasive Plants, Agronomy Department, University of Florida, Gainesville, FL.

**DESCRIPTION OF CURRENT DUTIES**

Primary responsibilities in designing and directing multi-scale (laboratory, mesocosm, greenhouse, and field) research focused on management of aquatic and wetland vegetation. Key specializations include: herbicide application technology, herbicide environmental fate, integrated weed management, screening potential aquatic herbicides, and developing new use-patterns for existing herbicide chemistry.

**PREVIOUS EMPLOYMENT**

2017-2019 Graduate Research Assistant, Department of Plant and Soil Sciences, Mississippi State University, Starkville, MS.

2015-2016 Graduate Research Assistant, Agronomy Department, University of Florida, Gainesville, FL.

2014-2015 Undergraduate Research Assistant, Plant Community and Ecosystem Ecology Lab, University of Florida, Gainesville, FL.

2014-2015 Water and Wastewater Intern - Invasive Plant Management, Payne’s Prairie Wetland Restoration Project, Gainesville Regional Utilities, Gainesville, FL.

2014 Summer Intern, Plant Community and Ecosystem Ecology Lab, University of Florida, Gainesville, FL.

2010-2014 Biological Science Aid, USDA-NRCS Plant Materials Center, Brooksville, FL.

**TEACHING**

Fall 2020, Guest Lecturer, Aquatic Plant Management Course, Lecture - Herbicide Application Technology, University of Florida

Spring 2019, Teaching Assistant, Course - Herbicide Technology, Mississippi State University

Spring 2019, Instructor, Course - Herbicide Technology Laboratory Section, Mississippi State University

Fall 2018, Co-Instructor, Course - Introduction to Weed Science, Mississippi State University

Spring 2018, Teaching assistant, Course - Weed Biology and Ecology, Mississippi State University

Spring 2018, Instructor, Course - Weed Biology and Ecology Laboratory Section, Mississippi State University

**GRADUATE ADVISING**

Taylor Darnell (M.S., current) - Co-Advisor

**CREATIVE WORKS OR ACTIVITIES**

*Key for author relationships:* senior author(s) = underline, self = bold; superscript notations: my graduate student = G, other graduate student = g, post-doctoral associate = p

**Publications**

**Peer Reviewed - Published (Total 14)**

14. **Sperry BP**, Calhoun JS, Ferguson JC, Kruger GR, Bond JA, Johnson AB, Reynolds DB (In Press) Effect of carrier volume and spray quality on glyphosate-resistant soybean response to sublethal dicamba exposure. Pest Management Science

13. **Sperry BP**, Ferrell JA (In Press) Effect of carrier volume and application method on waterhyacinth response to 2,4-D, glyphosate, and diquat. Invas Plant Sci Mana 14:29-34

12. **Sperry BP**, Enloe SF, Leary JK (2021) Effect of carrier volume and adjuvant with foliar applications of triclopyr on Brazilian peppertree. J Aquat Plant Manage 59:46-51

11. Prevost WJg, Mudge CR, **Sperry BP**, Fontenot KK, Strahan RE (2021) Sensitivity of non-target aquatic and terrestrial plants to metsulfuron-methyl exposure by foliar spray or irrigation. J Aquat Plant Manage 59:7-13

10. **Sperry BP**, Leary JK, Jones KD, Ferrell JA (2021) Observations of a submersed field application of florpyrauxifen-benzyl suppressing hydrilla in a small lake in central Florida. J Aquat Plant Manage 59:20-26

9. Enloe SF, Leary JK, Prince CM, **Sperry BP**, Lauer DK (2020) Brazilian peppertree and mangrove species response to foliar-applied novel auxin-type herbicides. Invas Plant Sci Mana 13:102-107

8. **Sperry BP**, Dias JLCS, Prince CM, Ferrell JA, Sellers BA (2020) Relative activity of pyridine and pyrimidine carboxylic acid herbicides. Weed Technol 34:402-407

7. **Sperry BP**, Lawrence BH, Bond JA, Reynolds DB, Golden BR, Edwards HM (2019) Corn (*Zea mays* L.) response to sublethal rates of paraquat and fomesafen at vegetative growth stages. Weed Technol 33:595-600

6. Scholtes AB, **Sperry BP**, Reynolds DB, Irby JT, Eubank TW, Barber LT, Dodds DM (2019) Effect of soybean growth stage on sensitivity to sublethal rates of 2,4-D and dicamba. Weed Technol 33:555-561

5. Foster HC, **Sperry BP**, Reynolds DB, Kruger GR, Claussen S (2018) Reducing herbicide particle drift: effect of hooded sprayer and spray quality. Weed Technol 32:714-721

4. Dias JLCS, Banu A, **Sperry BP**, Enloe SF, Ferrell JA, Sellers BA (2017) Relative activity of four triclopyr formulations. Weed Technol 31:928-934

3. **Sperry BP**, Ferrell JA, Smith HC, Fernandez VJ, Leon RG, Smith CA (2017) Effect of sequential applications of protoporphyrinogen oxidase-inhibiting herbicides on Palmer amaranth (*Amaranthus palmeri*) control and peanut response. Weed Technol 31:46-52

2. **Sperry BP**, Ferrell JA, Leon RG, Rowland DL, Mulvaney MJ (2017) Sesame tolerance to preplant applications of 2,4-D and dicamba. Weed Technol 31:590-598

1. **Sperry BP**, Ferrell JA, Leon RG, Rowland DL, Mulvaney MJ (2016) Influence of planting depth and application timing on S-metolachlor injury in sesame (*Sesamum indicum* L.). Weed Technol 30:958-964

**Peer Reviewed - Under Review (Total 5)**

5. Enloe SF, Leary JK, Prince CM, **Sperry BP**, Lauer DK (under review) Brazilian peppertree and mangrove species response to imazamox and carfentrazone herbicides. Invasive Plant Science and Management

4. **Sperry BP**, Mudge CR, Getsinger KD, Influence of carrier volume and adjuvant type on aqueous spray retention on floating aquatic plants.

3. Mudge CR, Sartain BT, **Sperry BP**, Getsinger KD, Evaluation of florpyrauxifen-benzyl against Eurasian watermilfoil, and selectivity against non-target Illinois pondweed, elodea, and coontail.

2. Pokrzywinski KL, Bishop WM, Grasso CR, Fernando B, **Sperry BP**, Berthold D, Laughinghouse D, Van Goethem E, Volk K, Getsinger KD, Evaluation of a peroxide-based algaecide product for cyanobacterial control in Lake Okeechobee.

1. Mudge CR, **Sperry BP**, Getsinger KD, Influence of floating plant density on aqueous spray loss. Pest Management Science

**Peer Reviewed - Manuscripts in Preparation (Total 7)**

7. **Sperry BP**, Sartain BT, Getsinger KD, Pokryzwinski KL, Bishop WM, Heilman M, Field demonstration of a peroxide-based algaecide for harmful algal bloom control in Lake Okeechobee.

6. **Sperry BP**, Mudge CR, Ferrell JA, Effects of carrier volume and herbicide rate on waterlettuce response to glyphosate, diquat, and carfentrazone.

5. **Sperry BP,** Enloe SF, Prince CM, Sethoxydim performance on torpedograss as affected by carrier volume and rate.

4. **Sperry BP**, Scholtes AB, Golus JA, Vieira BC, Reynolds DB, Kruger GR, Irby JT, Eubank TW, Barber LT, Dodds DM, Soybean dose-response to 2,4-D and dicamba at vegetative and reproductive growth stages.

3. **Sperry BP**, Reynolds DB, Ferguson JC, Bond JA, Kruger GR, Johnson AB, Achieving wheat residue penetration of residual herbicides with the addition of an organosilicone-containing adjuvant.

2. **Sperry BP**, Reynolds DB, Ferguson JC, Bond JA, Kruger GR, Johnson AB, Relative duration of residual control among preemergence herbicides.

1. **Sperry BP**, Reynolds DB, Ferguson JC, Bond JA, Kruger GR, Johnson AB, Influence of wheat residue, carrier volume, and spray quality on the efficacy of residual herbicides.

**Trade Journals/Magazine Articles (Total 5)**

5. Darnell TG, **Sperry BP**, Prince C (In Press) History, Biology, and Management of Alligatorweed. Aquatics magazine

4. **Sperry B**, Ferrell J, Hoyer M (In Press) Is hydrilla good for fishing? Aquatics magazine

3. Darnell TG, **Sperry BP**, Prince C (2021) Hydrilla tubers – a review. Aquatics magazine 42(4):6-9

2. **Sperry BP**, Jones DK, Nelson B, Jaggers BV, Leary JK (2020) Emergency hydrilla treatment in Lake Panasoffkee Outlet River alleviates flooding. Aquatics magazine 42(1):18-22

1. Leary J, Dew A, Harris E, Jones D, Prince C, **Sperry B** (2019) A re-examination of mechanical harvesting hydrilla on Lake Tohopekaliga: Is it what we thought it was? Aquatics magazine. Aquatics magazine 41(4):23-29

**Extension (Total 1)**

1. Bultemeier BW, **Sperry BP** (2021) Sprayer Cleanout Procedures: Protect Equipment and Crops. UF IFAS EDIS. Under Review

**Reports (Total 1)**

1. **Sperry BP**, Ferrell JA (2020) Evaluating low-volume herbicide application techniques for floating plant control. FWC Final Report

**Abstracts (Total 19)**

19. Jablonski Jg, Prince C, Enloe S, Macdonald G, **Sperry B** (2021) Reproductive biology of Cuban bulrush (Cyperus blepharoleptos). Proc Southern Weed Sci Soc 66

18. Darnell TLG, **Sperry BP**, Prince CM (2021) Effect of fragment length and clump size on desiccation tolerance of Hydrilla verticillata. Proc Southern Weed Sci Soc 142

17. Darnell TLG, **Sperry BP**, Haller WT (2021) Hydrilla verticillata tuber response to herbicide treatments under simulated drawdown conditions. Proc Southern Weed Sci Soc 53

16. Pokrzywinski K, Bishop W, Grasso C, Fernando B, **Sperry B**, Berthold D, Laughinghouse D, Van Goethem E, Volk K, Heilman M, Getsinger K (2020) Evaluation of a peroxide-based algaecide product for cyanobacterial control in Lake Okeechobee. Society of Environmental Toxicology and Chemistry Annual Meeting. Virtual. 2.04.29

15. Moreira RB, Vieira BC, **Sperry BP**, Reynolds DB, Golus JA, Beneton K, Antuniassi UR, Kruger GR (2019) Use of pulse-width modulation to compare carrier volume and dose response on soybean. Proc North Central Weed Sci Soc 113

14. Moreira RB, Vieira BC, **Sperry BP**, Reynolds DB, Golus JA, Gomes AC, Ferguson JC, Antuniassi UR, Kruger GR (2019) Response of corn to low doses of paraquat and fomesafen using different carrier volumes. Proc North Central Weed Sci Soc 10

13. Leary J, Dew A, Harris E, Durham M, Prince C, Jones D, **Sperry B** (2019) Calibrating hydrilla mechanical harvest operations performance on Lake Tohopekaliga. Florida Aquatic Plant Management Society 43rd Annual Training Conference, St. Petersburg, FL

12. Bernards M, Culpepper AS, Kruger G, Nolte SA, Norsworthy JK, de Oliveira Latorre D, Reynolds DB, Sikkema P, **Sperry B**, Sprague C, Stephenson DO, Werle R, Young BG (2019) The effect of tank mix partners on Xtendimax volatility. Proc Weed Sci Soc America 59:335

11. **Sperry B**, Calhoun J, Reynolds DB, Ferguson J, Kruger G (2019) Effect of carrier volume and spray quality on soybean response to dicamba. Proc Weed Sci Soc America 59:332

10. **Sperry B**, Reynolds DB, Ferguson J, Bond JA, Kruger G, Brown A (2019) Relative duration of residual control among preemergent herbicides. Proc Weed Sci Soc America 59:35

9. **Sperry B**, Calhoun J, Reynolds DB, Ferguson J, Kruger G (2019) Effect of carrier volume and spray quality on soybean response to dicamba. Proc South Weed Sci Soc 72:153

8. **Sperry B**, Reynolds DB, Ferguson J, Bond JA, Kruger G, Brown A (2019) Relative duration of residual control among preemergent herbicides. Proc South Weed Sci Soc 72:105

7. **Sperry BP**, Reynolds DB (2018) Nozzle, carrier volume, and weed size effect on glufosinate efficacy. Proc South Weed Sci Soc 71:10

6. **Sperry BP**, Reynolds DB (2018) Nozzle, carrier volume, and weed size effect on glufosinate efficacy. Proc Weed Sci Soc America 58:18

5. **Sperry BP**, Reynolds DB, Bond J, Ferguson JC, Kruger G, Brown-Johnson A (2018) Effect of nozzle, carrier volume, and cover crop residue on residual herbicide efficacy. Proc South Weed Sci Soc 71:167

4. **Sperry BP**, Reynolds DB, Bond J, Ferguson JC, Kruger G, Brown-Johnson A (2018) Effect of nozzle, carrier volume, and cover crop residue on residual herbicide efficacy. Proc Weed Sci Soc America 58:143

3. **Sperry BP**, Ferrell JA, Leon R, Mulvaney MJ, Rowland DL (2017) Preplant applications of 2,4-D and dicamba in sesame (*Sesamum indicum* L.). Proc South Weed Sci Soc 70:152

2. **Sperry BP**, Ferrell JA, Leon R, Mulvaney MJ, Rowland DL (2016) S-metolachlor interactions with sesame establishment. Proc South Weed Sci Soc 69:459

1. **Sperry BP**, Ferrell JA (2016) S-metolachlor Interactions with Sesame Emergence, Growth, and Yield. Proc Florida Weed Sci Soc

**Recorded Media (Total 4)**

**Sperry BP** (2020) “Aquatic Plant Management: A Florida Perspective”. USACE ERDC Summer Invasive Species Webinar Series. <https://www.youtube.com/watch?v=29gRn6JV5kU&feature=youtu.be>

**Sperry BP** (2020) “Aquatic Weed Control: Myths and Misconceptions” USACE ERDC Summer Invasive Species Webinar Series. <https://www.youtube.com/watch?v=x6pFjuG1peo&feature=youtu.be>

**Sperry BP** (2020) “Off-Target Movement of Herbicides”. Florida Department of Agriculture and Consumer Services. Recording to be used as an education and training tool for new inspectors.

**Sperry BP** (2019) “UF/IFAS CAIP Lake Panasoffkee Outlet River Project”. <https://www.youtube.com/watch?v=TM-FDB72i10&t=13s>

**Blogs (Total 4)**

**Sperry BP** (2021) Spray Coverage Vs. Spray Coverage. University of Florida/IFAS CAIP Blog. <http://blogs.ifas.ufl.edu/caip/2021/02/28/spray-coverage-vs-spray-coverage/>

**Sperry BP** (2021) Do Aquatic Herbicides Cause Sores on Fish? University of Florida/IFAS CAIP Blog. <http://blogs.ifas.ufl.edu/caip/2021/02/28/do-aquatic-herbicides-cause-sores-on-fish/>

**Sperry BP**, Oesterreicher S (2019) Integrated Management Approach Increases Water Flow. University of Florida/IFAS CAIP Blog. <http://blogs.ifas.ufl.edu/caip/2019/10/02/integrated-management-approach-increases-water-flow/>

**Sperry BP**, Miller CW (2016) Open Sesame: The Pollination of Sesame Plants. University of Florida/IFAS Entomology and Nematology Blog. <http://blogs.ifas.ufl.edu/entnemdept/2016/04/20/open-sesame-pollination-sesame-plants/>

**PRESENTATIONS, POSTERS, WEBINARS (Total 11)**

**National (Total 3)**

3. **Sperry B**, Getsinger K, Pokrzywinski K, Heilman M, Bishop W, Sartain B (2020) Evaluation of a peroxide-based product for harmful algal bloom control in the Lake Okeechobee System. Aquatic Nuisance Species Research Program Review.

2. **Sperry BP** (2020) Aquatic Weed Control: Myths and Misconceptions. USACE ERDC Summer Invasive Species Webinar Series. June 17, 2020. Invited

1. **Sperry BP** (2020) Aquatic Plant Management: A Florida Perspective. USACE ERDC Summer Invasive Species Webinar Series. June 10, 2020. Invited

**State (Total 7)**

7. **Sperry BP**, Gettys L, Ferrell J (2021) Revisiting the Concept of Maintenance Control for Floating Plants. FWC Research Symposium

6. **Sperry BP** (2021) Evaluation of Carrier Volume and Application Techniques on Floating Plant Control. FWC Research Symposium

5. **Sperry BP** (2021) Concentration-Exposure Time Requirements for Subsurface Herbicide Applications to Control Floating Plants. FWC Research Symposium

4. **Sperry BP** (2020) Aquatic Plant Management: Myths and Misconceptions. Florida Fish and Wildlife Conservation Commission, Webinar Series for Regional Biologists. October 30, 2020. Invited

3. **Sperry BP** (2020) Aquatic Weed Control FAQs. 2020 Florida Aquatic Weed Control Short Course. Invited

2. **Sperry BP**, Ferrell JA(2020) Effects of spray volume and application equipment on floating plant control. Florida Aquatic Plant Management Society Annual Meeting. Invited

1. **Sperry BP**, Ferrell JA (2020) Understanding Off-Target Movement of Herbicides. Webinar training for Florida Department of Agriculture and Consumer Services Inspectors. June 24, 2020. Invited

**Regional (Total 1)**

1. **Sperry BP** (2021) Shifting management strategies for free-floating plants. Training presentation for aquatic herbicide applicators in Martin County, FL. February 24, 2021. Invited

**PRESENTATIONS CONTRIBUTED (Total 5)**

5. Gladding KL, Ferrell JA, Leary JK, **Sperry BP** (2021) Technical support for monitoring large-scale management of hydrilla and other invasive aquatic plants. FWC Research Symposium

4. Darnell TLG, Prince CM, **Sperry BP** (2021) Effect of fragment length and clump size on desiccation tolerance of *Hydrilla verticillata*. FWC Research Symposium

3. Mudge C, **Sperry B**, Getsinger K (2020) Refining foliar herbicide applications to improve control of emergent plants. Aquatic Plant Control Research Program Review

2. Sartain B, Getsinger K, **Sperry B** (2020) Field evaluations for managing monoecious hydrilla using florpyrauxifen-benzyl (ProcellaCOR). Aquatic Plant Control Research Program Review

1. Jones D, **Sperry B** (2019) Drip application of endothall in the Panasoffkee Outlet River, Sumter County, FL. FWC Hydrilla Management Review

**SCHOLARLY JOURNAL SERVICE**

**Reviewer for:**

-*Invasive Plant Science and Management*

-*Journal of Aquatic Plant Management*

-*Lake and Reservoir Management*

-*Management of Biological Invasions*

-*Sustainability*

-*US Army Research and Development Center Environmental Lab Reports*

-*UF EDIS*

-*Weed Science*

-*Weed Technology*

**PROFESSIONAL MEMBERSHIPS**

**International**

Golden Key International Honour Society, 2018-present

**National**

Alpha Gamma Rho Fraternity, 2012-present

Aquatic Plant Management Society, 2019-present

 Program Committee member, 2019-2020

 Student Poster Contest Judge, 2019-present

Gamma Sigma Delta Honors Society, 2018-present

Phi Kappa Phi Honors Society, 2018-present

Weed Science Society of America, 2015-present

**Regional**

Southern Weed Science Society, 2015-present

**State**

Florida Aquatic Plant Management Society, 2019-present

Florida Exotic Pest Plant Council, 2019-present

Florida Weed Science Society, 2015-present

 Student Paper Contest Judge, 2019-present

**COURSE/TRAINING INSTRUCTOR**

2020, Florida aquatic Plant Management Short Course Instructor

2020, Florida Department of Agriculture and Consumer Services, Off-Target Herbicide Movement Instructor

**PROFESSIONAL CERTIFICATIONS**

Certified Pesticide Applicator (FL); Issued 2019; Aquatics, Demonstration/Research, Natural areas

Certified Pesticide Applicator (MS); Issued 2017; Demonstration/Research, Agriculture-row