

DOCTOR OF PLANT MEDICINE

NEWS



VOLUME 13
Spring 2018



UF | **IFAS CALS**
UNIVERSITY of FLORIDA

STUDENT PHOTO FEATURE



Matt Borden took this photo of a honey bee, *Apis mellifera*, feeding from a blanket flower, *Gaillardia pulchella*, at the Mark Bostick Golf Course. The Turf and Ornamental Entomology lab is conducting research at this and several other golf courses in the region to replace some of the out-of-play areas with native wildflower habitat. This photo won 1st place for Artistic Photo at the 2018 ESA Southeastern Branch Meeting.

Creators

ALICIA KELLEY, Editor
DPM Student - University of Florida

BLAIRE COLVIN, DPM, Co-Editor
University of Florida

AMANDA HODGES, PhD, Co-Editor
DPM Director - University of Florida

MICHAEL BOYS, Graphic Designer



UF | **IFAS CALS**
UNIVERSITY of FLORIDA

www.dpm.ifas.ufl.edu

 @UFPlantDoctors

 /UFPlantDoctors

INSIDE THIS ISSUE



4 Welcoming Remarks

5 Faculty Highlight:
Dr. Greg MacDonald

7 New Student Profiles

8 Internship Highlight

8 New DPM Website

9 Program Exhibits, Activities,
and Student Recruiting

10 Congratulations
to our Graduates

11 DPM Student Organization
(DPMSO) News

12 Student
Accomplishments

13 Alumni Spotlight:
Dr. Lacey Mount

WELCOMING REMARKS



Dear Students, Faculty, Alumni, and Friends,

DPM News began in the fall of 2013 to provide updates to our community. We are continually improving our publications and communications, and your feedback is welcome at any time. Our newsletters, including this issue, focuses on our student and alumni accomplishments. This semester, we highlight the continued efforts of our students in their outreach and research endeavors.

The DPM program began a highly successful concerted effort focused on high school youth plant biosecurity and invasive species outreach during the fall of 2016. The program continues to be extremely successful, and has even resulted in continued communication with one prospective high school student regarding her future interest in DPM program enrollment. One DPM student is funded as an outreach coordinator for the project thanks to available grant funds from the USDA Farm Bill, and other students volunteer to assist with program delivery. In addition to youth outreach biosecurity, our students have been involved in Ag in the Classroom outreach events, and delivering agriculturally-based educational programming to local unemployed adults at the non-profit GRACE Marketplace in Gainesville, FL. Our students have also conducted field surveys of pests in new and emerging Florida crops, such as peach and olives, or more established crops such as crucifers and organic tomatoes.

Dr. Greg MacDonald, one of our excellent faculty mentors from the Agronomy Department, has been featured in this issue. We are also happy to highlight one of our distinguished alumni, Dr. Lacey Mount, consultant for Dellavalle Laboratory, Inc. Finally, we are excited to welcome two new students for spring 2018, Nick Goltz and Catherine White, as we also celebrate the wonderful fall 2017 graduation accomplishments of our new alumni, Dr. Morgan Byron and Dr. Lisbeth Espinoza. I hope you enjoy the spring 2018 edition of DPM News!

Sincerely,

Dr. Amanda Hodges

Director, Doctor of Plant Medicine Program

FACULTY HIGHLIGHT



Dr. Gregory MacDonald
Professor, Weed Science
and Agronomy

Dr. Gregory MacDonald is a Professor of Weed Science and Agronomy at the University of Florida. He first started at UF 20 years ago with a 70% research and 30% teaching appointment. Over the course of his time at UF, his appointment has shifted to 70% teaching and 30% research.

Dr. MacDonald is originally from upstate New York. He received an Associate's degree in Agricultural Engineering at Alfred State College. He completed a Bachelor's degree at Cornell University in Plant Sciences with a focus on vegetable crop production. His Master's and PhD programs were completed at UF in weed science. As a Master's student, Dr. MacDonald researched row crop weed science, and as a PhD student he focused on invasive plant management. Before starting as a faculty member at UF, Dr. MacDonald was an Assistant Professor at the University of Georgia with a 100% extension appointment. He managed over 20 commodities, including several fruits, vegetables, corn, cotton, and sorghum. He worked with extension agents across the state and gave 20-80 extension presentations every year.

He first became interested in weed science during a course at Cornell University. "I like weed science because

it involves multiple disciplines that hybridize together. Plant physiology, botany, soil science, agronomy, chemistry, and ecology all combine into weed science."

His current research program involves research on invasive species management, especially perennial grasses, and the physiological and biochemical aspects of herbicides. Dr. MacDonald also works with Florida Cooperative Invasive Species Management Areas (CISMAs), which is an alliance of stakeholders addressing invasive species management in Florida. He has several years of experience in international agronomy in Guyana and Haiti, and most recently Ghana, where he develops programs which help rural farmers with peanut production.

Dr. MacDonald instructs several courses, including: Integrated Weed Management (PLS 5632), Plant/Herbicide Interaction (PLS 6655), Applied Crop Production (AGR 4214), and Tropical Cropping Systems (AGR 5277C). All of these courses count

towards the Plant, Soil, and Weed Science credit requirements.

Dr. MacDonald serves as the Plant and Soil Science coordinator for the DPM program. He has been involved with the DPM since its inception and has served on several student committees. "The DPM program is broad-based and multi-disciplinary. It allows students to take research-based science and apply it to practical situations."

When asked what he likes most about his job, Dr. MacDonald shared that he most enjoys interacting with students. "My advice to students is to take advantage of going to meetings. Extension, county meetings, grower

"The DPM program is broad-based and multi-disciplinary. It allows students to take research-based science and apply it to practical situations."

meetings, research conferences, etcetera. That's where you will make your connections and find career opportunities."

If the shoe fits...

Why DPM might be right for you!



1. Do you want to know more about plant disease management, arthropod pest or nematode management, crop nutrition and agronomy, or horticultural sciences?
2. Are you interested in hands-on curriculum that allows you to work in the field and/or in a lab, internships with local businesses or federal agencies, and interdisciplinary studies?
3. Do you aspire to work in academia, industry, extension, or regulatory?
4. Do you enjoy opportunities to get involved with community outreach, networking, and attending professional development workshops, seminars, and scientific conferences?
5. Do you prefer application-based science?

If you answered yes to most of the questions listed above, then we recommend that you explore your graduate career options with the UF DPM Program!

ALREADY ENROLLED IN A GRADUATE DEGREE PROGRAM?

Contact our program for more information about potential dual-enrollment!

Entomology and Nematology Department, UF/IFAS
Steinmetz Hall
1881 Natural Area Drive
P.O. Box 110620
Gainesville, FL 32611
Phone: (352) 273-3903
E-mail: ealyanaya@ufl.edu

NEW STUDENT PROFILES

NICK GOLTZ



Academic Credentials:

- B.S. in Entomology with a focus in Biosecurity — University of Florida

Why DPM?

The DPM degree is the culmination of a holistic professional program that beautifully synthesizes entomology, nematology, plant pathology, agronomy, mycology, and other topics. Because of this, a Doctor of Plant Medicine is able to wear many hats! They might be an educator in one moment and an ambassador of the environment in the next. To me, this is incredibly cool.

I love the depth of knowledge and flexibility that the DPM degree provides almost as much as the genuineness of the students it attracts. The Doctor of Plant Medicine degree will allow me to have any number of careers that directly involve my greatest passions: solving problems, supporting the environment, and helping others.

Favorite Quote

"A man has made at least a start on discovering the meaning of human life when he plants shade trees under which he knows full well he will never sit."

- Elton Trueblood, *The Life We Prize* (1951)

CATHERINE WHITE



Academic Credentials:

- B.A. in Anthropology with a minor in Entomology — University of Florida
- M.S. in Entomology — University of Florida

Why DPM?

I am pursuing the DPM degree because I value the hands-on nature of the program and the focus on internships. It will provide a strong base of knowledge which will open up a variety of opportunities and careers. I am grateful for the opportunity to learn more about subjects that I am passionate about.

Favorite Quote

"Take chances, make mistakes, get messy!"

- Miss Frizzle

INTERNSHIP HIGHLIGHT

CORY PENCA: USDA-APHIS-PPQ

I am a pathways intern at the USDA-APHIS-PPQ office in Gainesville. I began this internship in June 2017, and since then I have had a chance to learn about PPQ-Florida's operations and the overall structure and culture of working in a federal agency. I have shadowed citrus health response personnel and fruit fly trappers in the Tampa area, attended a review of CBP port inspections in West Palm Beach and Fort Pierce, and traveled to Raleigh, NC to visit the Center for Plant Health Science and Technology and the Plant Epidemiology and Risk Analysis Laboratory.

I've also worked on some very interesting projects, including a study of cruise ship gardens as a pathway for the introduction of exotic pests. I am currently finishing up a case study on the recent outbreak of the Mediterranean fruit fly in the Dominican Republic, and my findings will be used to help support the use of trapping and pest surveillance to reduce the threat of such a large and expensive outbreak occurring again.

My experience as a DPM student has parlayed well into my internship. The mission of USDA-APHIS-PPQ is to protect American agriculture from exotic pests of all types, and an interdisciplinary perspective is required to achieve this goal.



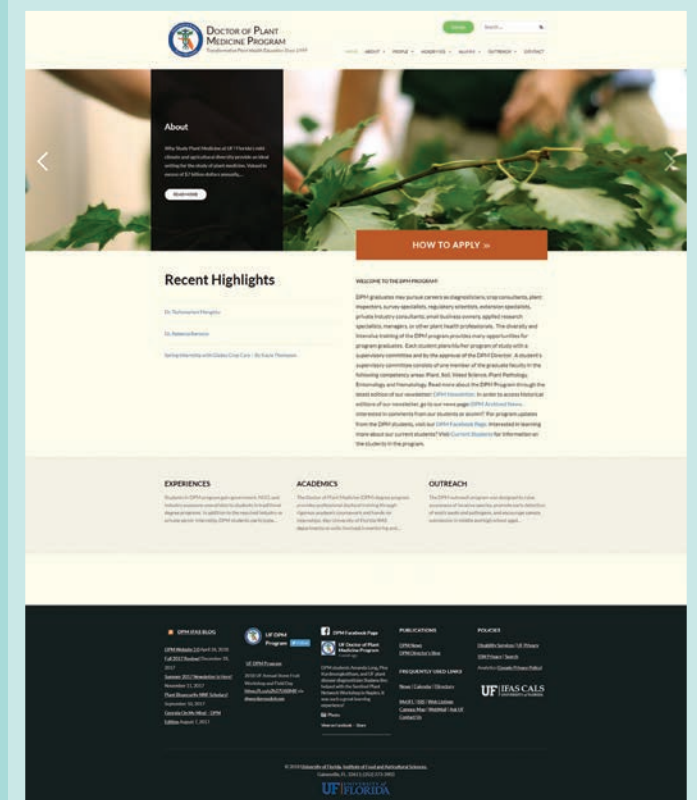
NEW DPM WEBSITE

The new and improved DPM website has launched! Aside from our normal content, we are adding an "Experiences" section where students can write about their internships and professional development trips! We are continually updating with new content and improvements.

This new website was developed by our very own DPM student, Ariane McCorquodale, who has a previous degree in interactive media design!

Check out the new website here:

www.dpm.ifas.ufl.edu



PROGRAM EXHIBITS, ACTIVITIES, AND STUDENT RECRUITING

JANUARY

- Amanda Long and Ariane McCorquodale went to the Florida Citrus Show along with our DPM alumni, Dr. Kayla Thomason and Dr. Clay Pederson. Huge thanks to Dr. Pederson for sponsoring our students!
- Cory Penca, Alicia Kelley, and Ploy Kurdmongkoltham presented a Florida First Detector workshop at the Marion County Extension Office.
- Ploy Kurdmongkoltham taught Master Gardener volunteers all about caterpillar pests and controls at the Hernando County Extension Office.



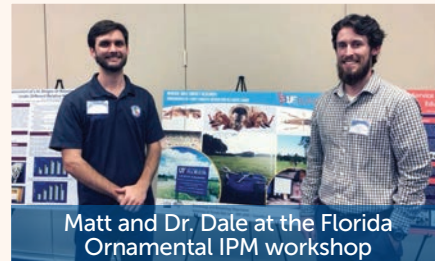
Amanda, Dr. Thomason, Ariane, and Dr. Pederson at the Florida Citrus Show

FEBRUARY

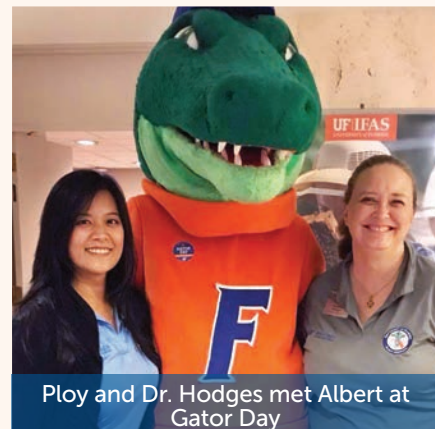
- Arjun Khadka, Cory Penca, Morgan Pinkerton, and Sage Thompson presented posters at the Florida Ornamental IPM Workshop in Gainesville, FL. Matt Borden assisted Dr. Adam Dale with workshop logistics. Dr. Amanda Hodges served as a discussion moderator and co-organizer.
- Academic Advisor Elena Alyanaya and Amanda Long promoted the DPM Program at the CALS Career Expo!
- Dr. Amanda Hodges and Ploy Kurdmongkoltham represented the UF Entomology Department and Doctor of Plant Medicine Program at Gator Day at the capital in Tallahassee, FL!
- Dr. Amanda Hodges and Ploy Kurdmongkoltham presented at Washington County Extension Office for Florida First Detector workshop.
- Alicia Kelley, Sage Thompson, and Morgan Pinkerton delivered presentations at the Bok Tower Gardens Florida First Detector Training. DPM alumnus Dr. Greg Kramer hosted the workshop.
- Blaire Colvin, Benjamin Waldo, Amanda Long, and Ploy Kurdmongkoltham volunteered at Marion County Ag Venture. They also ran into one of our alumni, Dr. Nicole Casuso!
- Alicia Kelley and Jessica Awad helped with the Bugology and Insect Encounters Booth at the Florida State Fair.



Marion County Extension Office hosted a Florida First Detector workshop



Matt and Dr. Dale at the Florida Ornamental IPM workshop



Ploy and Dr. Hodges met Albert at Gator Day

MARCH

- Ariane McCorquodale, Arjun Khadka, Matt Borden, Cory Penca, Morgan Pinkerton, Sage Thompson, and Alex Gannon participated in the 2018 Southeastern Branch Meeting of the Entomological Society of America in Orlando, FL.
- Alicia Kelley, Amanda Long, Wael Elwakil, Ploy Kurdmongkoltham, and Dr. Bill Lester judged junior high and high school science projects at the 63rd State Science & Engineering Fair in Lakeland, FL.



Alicia, Amanda, Ploy, and Dr. Lester at the 63rd State Science Fair



Blaire, Dr. Casuso, Benjamin, and Ploy at Ag Ventures



DPM Students with Dr. Hodges at the ESA Southeastern Branch Meeting

CONGRATULATIONS TO OUR GRADUATES

Congratulations to our Fall 2017 Graduates! We wish you the best!

We asked our graduates to share a few words regarding their recent graduation and current employment. Here is what they had to say.

DR. MORGAN BYRON



Before entering the DPM program, I knew I wanted to study plants but was struggling to connect my passions for ecology and nature to a career path as a professional scientist. As an undergraduate, I studied ecological systems and the interconnected relationships found in nature. For my Master's, I focused on entomology and management of native Florida ecosystems through my assistantship with the Natural Area Teaching Lab. Learning more about insects and their impact on the environment led me to an interest in vectors and plant disease. This made the DPM program a natural choice for continuing my education.

My time in the DPM program was full of new experiences. Between the coursework and internships, I felt consistently challenged and inspired. Now I have not only earned a professional doctorate degree, but also a renewed confidence in my abilities and knowledge of all things pertaining to holistic plant health. I would recommend this program to anyone who wants to gain knowledge in a variety of agriculturally-related fields, especially if they are looking for practical diagnostic skills, opportunities to network and communicate their scientific perspective, and a small, supportive group of intelligent and hardworking students dedicated to the mission of plant doctors.

DR. LISBETH ESPINOZA



In Fall 2017 I graduated with my Master's in Entomology and Nematology and my doctorate in Plant Medicine. I am very grateful for the opportunity I had to be a part of this program. I enjoyed the classes, the internships, and the interactions with my classmates and professors. This program allowed me to learn and gain a lot of experience in crop protection, identification of plant pests, diseases, and management. Through the DPM I explored and expanded my knowledge to fields that I was not exposed to before in my career. I was able to co-enroll in a Master's program and complement all that knowledge with research experience in nematology.

In addition, I had the opportunity to participate in professional meetings where I could establish connections for the future and network with well-prepared scientists and graduate students. After graduation, I moved back to my country, and I am currently working at the Polytechnic School of the Coast (ESPOL) as a professor. Besides teaching, I am expecting to propose projects for applied research, extension, and make good connections with the industry to develop collaborative programs that help to improve agriculture in Ecuador.

DOCTOR OF PLANT MEDICINE STUDENT ORGANIZATION NEWS

OFFICER ELECTIONS

The DPMSO held new officer elections in January! Congratulations to our 2018 officers!

President: Ploy Kurdmongkoltham

Vice President: Ariane McCorquodale

Treasurer: Matt Borden

Secretary: Eleanor Phillips

Graduate Student Council Rep: Arjun Khadka

Historian: Benjamin Waldo



◀ Pictured left to right: Eleanor, Ariane, Ploy, Matt, Arjun, and Benjamin.



DPMSO PLANT SALE

The DPMSO held a plant sale at Kanapaha Spring Festival and the UF Environmental Horticulture Graduate Student Organization Plant Sale! We sold several varieties of basil, tomato, pepper, and succulents. We grossed approximately \$3,100 and our net gain was \$2,600. This is the second year in a row we have had the largest DPMSO fundraising achievement. Good job everyone!



▶ DPMSO plant sale at Kanapaha Spring Festival!

STUDENT ACCOMPLISHMENTS

MATT BORDEN



Matt was awarded the Florida Fertilizer & Agrichemical Association (FFAA) scholarship in January!

Matt presented a poster at the ESA Southeastern Branch Conference, titled "The effects of residential development soil mitigation strategies on invertebrate biodiversity and ecosystem services." He also won 1st place Artistic Photo in the photo salon. Congrats Matt!

BLAIRE COLVIN



Blaire was awarded the Florida Fertilizer & Agrichemical Association (FFAA) scholarship in January! She was also the first recipient of the W. Garry Gibson Memorial Scholarship (BASG). Congrats Blaire!

ARJUN KHADKA



Arjun presented his research at the ESA South Eastern Branch Meeting. His presentation title was, "Assessment of effect of various levels of relative humidity on life stages of *Halyomorpha halys*."

Arjun also successfully defended his Master's thesis this semester! Congrats Arjun!

MORGAN PINKERTON



Morgan was awarded first place in the Master's Student paper competition at the ESA Southeastern Branch meeting! Her paper title was, "Rearing protocol and size disparities in subsequent laboratory generations of *Piezodorus guildinii* (Westwood)."

Congrats Morgan!

CORY PENCA



Cory was awarded second place in the Extension, Outreach, and Teaching category at the ESA Southeastern Branch meeting! His presentation title was, "Using grower outreach to guide extension and research in Florida's nascent subtropical peach industry." Congrats Cory!



Alumni Spotlight

DR. LACEY MOUNT

Why did you choose to enroll in the DPM program?

I was always fascinated by plants, their physiology, disorders and diseases. Research can be quite absorbing, but what I enjoy is a career built around symptoms and diagnostics.

What is your current occupation, and how has your DPM degree aided you in the tasks and responsibilities as associated with your position?

Currently I am a consultant at Dellavalle Laboratory, Inc. We are located in the heart of California agriculture. In season (February-October), on any given day I may get called to look at symptoms on virtually any temperate or Mediterranean crop you can name: cotton, corn, tomatoes, alfalfa, citrus, almonds, grapes, stonefruit, or walnuts to list the most common ones.

There is plenty of routine crop health to sustain the business in terms of plant nutrition sampling and recommendations. I diagnose damage from salts and other abiotic disorders, nematodes, diseases, herbicide drift and occasionally insects. There is a whole separate industry for pesticide recommendations here. I get called when farmers and pest control

advisors (PCAs) see symptoms they can't understand or identify. It sounds like the description of a Doctor of Plant Medicine, doesn't it?

From a personal standpoint, how has your DPM degree influenced you?

This doctoral program gave me the interdisciplinary framework I wanted to further my career, find a job I love at a good company, and build a professional reputation that serves me well (as far as I know). When I talk with Ph.D.s, they're siloed by their disciplines, by their research foci. That statement isn't necessarily criticism. The goals are different.

Are there any challenges that your DPM degree has helped you overcome?

In the eight years since finishing my doctorate, I have not met with any professional challenges compared to those I faced in grad school. The background in the different disciplines gave me what I needed, and more, to meet all the local certifications I needed to work in California. The PCA exams were cake. The Certified Crop Advisor (CCA) exams were straightforward.

Do you have any advice or words of wisdom for current DPM students?

Enjoy grad school while it lasts! Soak up all the science you can! Enjoy the properly referenced presentations! Take electives outside your comfort zone. Try to make it to an APS or ESA meeting before you finish. Beg your committee for an RA position if you haven't already.

Otherwise, the worst vice is advice. If any student or alumni reading this bit wants advice on a specific situation or career track, the best contact info for me is on the Dellavalle website. I'm happy to listen.

DPM STUDENTS



Jessica Awad
Florida, USA



Jamey Betts
Georgia, USA



Matt Borden
Virginia, USA



Blaire Colvin
Florida, USA



Wael Elwakil
Egypt



Craig Frey
Maryland, USA



Alex Gannon
Florida, USA



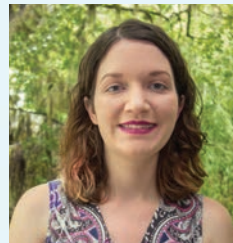
Nick Goltz
Florida, USA



Michael Gonzalez
Florida, USA



Brandon Jones
Florida, USA



Alicia Kelley
Indiana, USA



Arjun Khadka
Nepal



Ploy Kurdmongkoltham
Georgia, USA



Amanda Long
Florida, USA



Daniel Mancero
Ecuador



Ariane McCorquodale
Florida, USA



Cory Penca
Florida, USA



Eleanor Phillips
Tennessee, USA



Morgan Pinkerton
Florida, USA



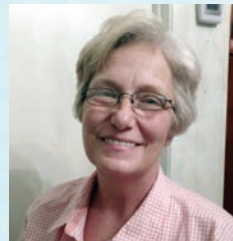
Bruce Stripling
Georgia, USA



Taylor Smith
Florida, USA



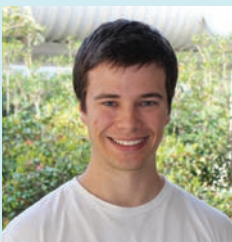
Lanette Sobel
Florida, USA



Susan Swartzfager
Florida, USA



Sage Thompson
Florida, USA



Benjamin Waldo
Indiana, USA



Catherine White
Florida, USA



External Advisory Committee

BEN BOLUSKY

Chief Executive Officer, Florida Nursery, Growers and Landscape Association

REGGIE BROWN

Executive Vice President, Florida Tomato Exchange

TREVOR SMITH

State Plant Regulatory Official/Director, FDACS-Division of Plant Industry

MARY HARTNEY

President and Executive Director, Florida Fertilizer and Agrichemical Association, Committee Chair

GARY HEIN

Doctor of Plant Health Director, University of Nebraska

PAUL HORNBY

Florida State Plant Health Director, USDA-APHIS-PPQ

MADELINE MELLINGER

President, Glades Crop Care, Past Committee Chair

CLAY PEDERSON

Managing Director, Agromillora Florida, Chair of the DPM Alumni Support Committee

TIM DURHAM

Assistant Professor of Agronomy, Ferrum College, Vice Chair of the DPM Alumni Support Committee

MARTHA RHODES ROBERTS

Former FDACS, Deputy Commissioner of Agriculture, Adjunct Professor, University of Florida

Faculty Advisory Committee

JOHN CAPINERA

Entomology and Nematology Department

BILLY CROW

Entomology and Nematology Department

NICK DUFAULT

Department of Plant Pathology

JOHN ERICKSON

Agronomy Department

NORMAN LEPLA

Entomology and Nematology Department

OSCAR LIBURD

Entomology and Nematology Department

GREG MACDONALD

Agronomy Department

HEATHER MCAUSLANE

Entomology and Nematology Department

KIMBERLY MOORE

Environmental Horticulture Department, Ft. Lauderdale Research and Education Center

JOHN PETERSON

Environmental Horticulture Department

KEITH SCHNEIDER

Food Science and Human Nutrition Department

JASON SMITH

School of Forest Resources and Conservation

J. STACY STRICKLAND

County Extension Director, Osceola County

XIN ZHAO

Horticultural Sciences Department

Doctor of Plant Medicine Student Organization (DPMSO)

PLOY KURDMONGKOLTHAM

President

ARIANE MCCORQUODALE

Vice President

ELEANOR PHILLIPS

Secretary

MATT BORDEN

Treasurer

BENJAMIN WALDO

Historian

ARJUN KHADKA

GSC Representative

AMANDA HODGES

Faculty Advisor

DPM Program Staff

AMANDA HODGES

DPM Director

ELENA ALYANAYA

Academic Advisor I

