

Upcoming Events

AG Day Saturday, September 9th

The 36th annual Ag Day tailgate and barbecue celebrates CSU's history and Colorado agriculture. Now, in 2017, Ag Day will take place in conjunction with the opening of the new campus stadium! The new Ag Day location will be on the soccer fields just west of the Lory Student Center.



Back to School Picnic Tuesday, September 5th

Bring your checkered blankets! The College of Agricultural Sciences will host this annual event from 11:30 am to 1:30 pm in the Monfort Quad. There will be free food and prizes!



Welcome the new BSPM Graduate Students!



Hudson Takano is originally from Brazil where he grew up working with tropical agriculture on his family's farm. He received his B.S. and M.S. degree both in Agronomy from the State University of Maringa - Brazil, in 2015 and 2017 respectively. Since 2010, Mr. Takano has been doing research on weed science. During his undergrad studies, he participated in internships programs at Dow AgroSciences and at the National University of La Plata - Argentina. His master's thesis focused on scientific names like glyphosate resistance in *Eleusine indica* and *Digitaria insularis*. As a Ph.D. Student at BSPM-CSU his main objective is to generate useful information at

molecular and physiology level to improve the weed management tools. Under Dr. Philip Westra's program, his research includes herbicide resistance evolution, biochemical and molecular markers for rapid detection of resistance, weed resistance surveys, dispersal patterns of resistance and population genetic structure of weeds. Outside the lab, he likes to meet with friends and do any outdoor activity.



Maia Holmes is a Graduate student working under Dr. Boris

Kondratieff and Matt Camper on a MS in Entomology. She received a BS in Fish, Wildlife and Conservation Biology at Colorado State University in the spring of 2017. Maia discovered her love for arthropods in 2013 after volunteering at the CSU Bug Zoo; two years later, she was hired as the Head of Husbandry for the Zoo. Her interests are arthropod conservation and education, and she hopes to share the amazing world of arthropods with everyone. Her favorite part about working with arthropods is sharing them with classrooms across Northern Colorado. A native-born Coloradoan, Maia enjoys the outdoors, music, and spending time with her family.



Daniel Dean is a Ft. Collins local, and will be beginning research with Dr. Pankaj Trivedi, focusing on the microbiome of plant and soil systems, in the Fall Semester. Daniel graduated from Creighton University in March 2016 with B.S. degrees in Biology and Environmental Science, as well as a sustainable energy minor, with agricultural ecology, biostatistics, and soil microbiology being some areas of special interest. After graduating, Daniel spent a season in the Northern Rockies region of the Montana Conservation Corps, working in Glacier National Park, as well as other federal and state natural areas, on a range of conservation projects, including wildlife surveys, site restoration, and trail work. More recently, Daniel has been working as a research assistant with the Jan Leach lab, most

extensively with Dr. Federico Martin, and he has enjoyed helping with a range of rice pathology projects, as well as working in the greenhouse. Daniel enjoys hiking, biking, photography, and cooking, among other interests, in his free time.



Melissa Shreiner was born in Boulder, Colorado. Growing up she has collected insects, hunted for edible mushrooms, and hiked most of the Rocky Mountains. Her ideology strongly became influenced by stewardship, biodynamic agriculture, beekeeping, and pollinator conservation while participating in youth gardening. After completing her undergraduate degree in Soil and Crop Sciences at CSU, she has now committed to obtaining a Masters degree in Entomology at CSU advised by Dr. Whitney Cranshaw. Her undergraduate research has involved bee visitation studies on native/invasive plants, bee taxonomy, and Japanese beetle damage assessments on roses. Her graduate degree will concentrate on the insect biodiversity of the industrial hemp crop in the western United States. Her program will also involve CDOT roadside surveys to develop improved roadside habitat for beneficial pollinators and native plants. Her passions include foraging, backpacking, biking, and listening to live music.



Eliza Clark is a new PhD student in BSPM and GDPE starting Fall 2017. She will be working with Dr. Ruth Hufbauer on the tamarisk/Diorhabda tamarisk beetle system in the Western United States. She will be investigating how

the hybridization between *Diorhabda* species effects the biological control of tamarisk. Eliza is originally from Moscow, Idaho and graduated from Brigham Young University in Provo, Utah in 2016 with a BS in Biology and a minor in Environmental Science. As an undergraduate, Eliza worked on a variety of projects including fungal endophytes, potato viruses, and fish morphology. Eliza enjoys hiking, backpacking, music, and reading the news.



John Dobbs In 2012, John completed his B.A. in Botany with a minor in Zoology at the University of Hawai'i at Manoa. After graduation, he worked for the Hawai'i Agriculture Research Center. He was involved in cacao, coffee, eucalyptus, awa, mango,

sugarcane, and mahogany projects. His main project was screening *Acacia koa* seedlings for resistance to koa wilt disease, caused by the fungal pathogen *Fusarium oxysporum*. He will be working with Dr. Jane Stewart, focusing on better understanding this pathogen to aid in developing management tools. He enjoys fishing, hiking, gardening, surfing, playing ukulele, and wood working.



Erika Peirce is a half Macedonian, half American, master's student in the department of Ecology. She will be working with Dr. Paul Ode and Dr. Frank Peairs on parasitoids of wheat stem sawfly. She received her B.S. in Horticulture at Colorado State University in 2017. Previously she worked for Dr. Whitney Cranshaw on parasitoids of European Elm Scale but decided to focus her efforts on agricultural pest management for her future degrees. In Erika's free time she enjoys hiking large mountains, traveling, learning new languages, hanging out with her dogs and taking pictures of insects. One day she hopes to travel to every country in the world and hike all seven summits.



Afnan Shazwan Nasaruddin

is an international student from Malaysia. He received his undergraduate degree in Biotechnology in 2011 at Rochester Institute of Technology (RIT), New York. After graduation, he came back home and worked at the Malaysian Agricultural Research and Development Institute (MARDI) in which he was involved with the development of lateral flow immunoassay test strips for the detection of the rice blast pathogen, *Magnaporthe oryzae*. He then started his graduate study in plant pathology at University of Wisconsin-Madison in Fall 2015. He began his research under the tutelage of Dr. Amy O. Charkowski, working on the validation of published molecular detection methods of the soft rot bacteria *Dickeya* and *Pectobacterium* with field potato samples. In Spring 2017, he moved to Colorado and is now working on pathogenicity and virulence of *Dickeya dianthicola*, which caused a

major outbreak in the Eastern US in 2015 and 2016. Outside of work, he enjoys hiking, boxing, running and traveling. He is also a fan of Game of Thrones. *Valar morghulis!*



Jessa Ata is a PhD student who will be working with Dr. Jane E. Stewart on molecular genetics of forest pathogens. She gained her B.S. and M.S. in Forestry, major in Forest Pathology and Tree Improvement, at the University of the Philippines Los Baños (UPLB) in 2009 and 2012, respectively. During her undergraduate and graduate studies, she had been involved in disease assessments in forest nurseries and plantations and, later on, in tree improvement programs. She works as a junior professor in UPLB where she teaches forest health and protection courses. She has also been part of several forest biological sciences research projects which involves both beneficial and pathogenic fungi in natural and managed ecosystems. Being a forester, she not only gets to explore different forest formations in the Philippines but also able to enjoy the great outdoors.

Shaista Karim is a graduate international student in BSPM with Dr. Amy Charkowski. Her research focuses on development of multiplex methods and management tools for *Dickeya dianthicola* on potato. Furthermore, she is also working on improving management methods for blackleg and tuber soft rot to provide extension information to seed potato farmers,

com-mercial potato farmers and seed potato certification agencies. She got her masters in Horticulture (Pomology) from University of Agriculture, Pakistan. Which has allowed her to understand the dynamics of agriculture and understand more about the socio economic challenges worldwide.



During her undergraduate studies, she worked as culture ambassador at Upper Iowa University for a semester funded by United States of Educational Foundation in Pakistan (USEFP). Which work helped her gain better understanding and provoked her interest in Agriculture. Her research will help to improve nutrition qualitatively, quantitatively and address food shortage and achieving food security broadly.



Nicholas Arthur is a masters student in entomology working towards obtaining his degree to serve in the United States Navy as a Medical Entomologist. He received his

B.A. in Biology from Lake Forest College. While at Lake Forest, he

completed a 15-week community ecology lab with Dr. Sean Menke. As a member of Dr. Menke's team, he characterized arthropod community structure in an Oak-Savanna restoration project. He has interned at the Chicago Botanic Garden in Dr. Jeremie Fants molecular ecology lab focusing on the consequences of floral variation among pollinating plants. During this time he was also a field research technician, documenting the phenology and population genetics of Hill's thistle, *Cirsium hillii*. This year he also took on an internship at the Denver Museum of Nature and Science as an entomology curatorial assistant under Dr. Frank Krell. This past summer he obtained a position with Denver's office of Vector Disease Control International, working as a field mosquito control technician focusing on abatement approaches using various treatment protocols. In Nicholas' free time he enjoys hiking, fishing, and playing rugby.

Farewell Graduates! 🎓

In the past year, BSPM had 7 hard-working and successful students obtain their Masters or Doctoral degrees. We are fortunate to have had you as students at CSU. We are proud of your accomplishments and we wish you the very best in your future endeavors.

Fall 2016 Graduates:

Dean Pettinga—M.S. (Gaines)

Spring 2017 Graduates:

Brandon Ewals-Strain—M.S. (Cranshaw)

Derek Sebastian—Ph.D. (Nissen)

John Coyle—M.S. (Nissen)

Summer 2017 Graduates:

Graham Tuttle—Ph.D. (Norton)

Cheryl Bowker—Ph.D. (Ode)

Megan Vahsen—M.S. (Hufbauer)

Awards, Achievements & Recognitions

2017 Best Teacher Award: Matt Camper

Every year, the CSU Alumni Association recognizes the most outstanding CSU teachers with the Best Teacher Awards. BSPM is happy to say that Matt Camper was honored with one of this year's awards. Congratulations, Matt! For the last seven years, Matt has taught entomology in BSPM. He serves as the director for the CSU Bug Zoo and has broad research interests which include studying insect pests of horticultural commodity crops and also studying the Cimex species (bedbugs and relatives) pest complex.



1st Prize Winner Molisch Award: Dr. Franck Dayan



The International Allelopathy Society awarded Dr. Frank Dayan the Molisch Award. This award is given once every 3 years for outstanding lifetime achievements in Allelopathy. Professor Molisch is remembered for the book, *The Influence of One Plant on Another* (1937), which blended his disciplinary interests and is credited with introducing the term 'allelopathy,' thus earning him the sobriquet 'the father of allelopathy.'

A grant was received by the Colorado Plateau Native Plant Program, which is backed by the Bureau of Land Management, will be funding Magda Garbowski's doctoral research. The proposal for this grant was largely written by Magda. Her research will focus on morphological and physiological traits of native restoration species and non-native species that interfere with restoration success and how the interaction of these species' are influenced by their traits.

Congratulations Magda Garbowski!!

The **Margaret T. Irish Family Scholarship Fund** was awarded to graduate student **Stephan Miller** and is given to recognize a student that exhibits a true interest in the field of farming or ranching and has a major or field of study within the College of Agricultural Sciences. Stephen also received the **Western Colorado Horticultural Society Student Award**.

Spring 2017 William M. Brown Professional Development Award Recipients with Betty Brown

Alyx Shigenaga
Raven Bough
Curtis Hildebrandt
Sarah Miller



Information about BSPM scholarships can be found on our website, under "BSPM Departmental Scholarships."

<http://bspm.agsci.colostate.edu/bspm-departmental-scholarships/>

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Awards, Achievements & Recognitions

Stephen Cohen received the **APS Foundation Student Travel Award** which allowed him to travel to the APS Annual Meeting in 2017. Stephen also received the **CSU School of Global Environmental Sustainability (SoGES) Leadership Fellowship** which provides training to early career development and science communication.



Jonathan Jacobs received the **USDA NIFA Postdoctoral Fellowship** which is a grant that provides Dr. Jacobs two years of funding to study the evolutionary and biological basis of vascular diseases by *Xanthomonas* pathogens of cereal crops.

Schroth Faces of the Future Early Career Professionals Symposium
This award gives Dr. Huerta the opportunity to present her research at the APS Annual Meeting in 2017 and speculate on the future direction of Host Resistance and Host/Pathogen Interactions. Dr. Huerta has also been invited to speak at the **2017 National Diversity in STEM Conference** in Salt Lake City, UT this October. Her travel there will be sponsored by an award from the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) where she has also organized and will be chairing a special session titled “On the Plant Path”.



The **NFS Travel Award** was awarded to graduate student, **John Long**. This award funds the travel and participation in the Rice Research to Production course at the International Rice Research Institute in the Philippines. This 3-week course is designed to educate participants on the cultural basis of rice farming, impart skills related to rice research, and develop international collaborations.

Dhaval Vyas, Dawn Hajdu, and Theresa Barosh have all been awarded **Ag Day Scholarships**. Each year the college gives out several Ag Day Scholarship in order to promote and reward agriculture’s future leaders.

Graham Tuttle was awarded the **2017 College of Ag Sciences Graduate Student Teaching Award**.

Brian Campbell was awarded the **August A. Busch, Jr Memorial Award**. This is awarded to a student based on Academic performance and Leadership history

Thank you to all of the Sponsors and Donors we have had in the past year!

Bayer Corporation, Dow AgroSciences LLC, Mrs. Barbara Bartell, Progressive Agricultural Management, Jesse & Gloria Dubin Fund, Syngenta Corporation, United Phosphorus Inc, Trinidad Benham Corporation, Mrs. & Mr. Herold, Dr. & Mr. Shew,, BASF Corporation, Alligare LLC, Mrs. & Dr. Stanford, Wilbur-Ellis Company, Dr. Leach and Dr. Tisserat, Dr. & Ms. Opler, Mr. & Mrs. Harp, Mr. Fithian, Mr. & Mrs. Bowman, Mr. & Mrs. Fichtner, Dr. Cris Argueso & Dr. Lucas Argueso, Mr. & Mrs. Hoffman, FMC Corporation APG, Valent U.S.A. Corporation, Mr. Davenport, Dr. Djonovic & Dr. Sakadzic, Dr. Bohmont, Mr. & Mrs. Kilgore, Dr. & Mrs. Stoaks, Mr. & Mrs. Reid, Nufarm Americas Inc, Dr. & Mrs. Shaner, Loveland Products Inc, SynerMulch Erosion Control Products Inc, Makhteshim-Agan of North America Inc, Rocky Mountain Regional Turfgrass Association, Dr. & Mrs. Berry, Mountain West Pesticide Education and Safe, Gowan Company LLC, Mr. & Mrs. Eckberg, Aquatic Ecosystem Restoration Foundation., & Mrs. Betty Brown.

Retirements

Dr. George Beck

After a 31 year career as a Weed Scientist, Professor, and Extension Specialist, Dr. Beck retired in December of 2016. His research primarily focused on yellow toadflax and diffuse knapweed.



Mark McMillan

Worked as a research associate who studied Plant Pathology with Dr. Howard Schwartz for 28 years, then Weed Science with George Beck for his last two years. His total service to BSPM was close to 32 years before his retirement in December 2016.

Dr. Thomas Holtzer

In September of 2016, after a 28 year career with BSPM, Dr. Holtzer retired. He was BSPM's Department Head for 19 years. His research mainly focused on Integrated Pest Management as a component of dryland cropping systems and in the migration, dispersal, biological control, and landscape-scale ecology of Russian wheat aphid.



Condolences



This past May, we lost Dr. Bert Bohmont, 84. Bert began work for the Cooperative Extension Service at CSU in 1965 and was the coordinator of Pesticide Programs until his retirement in 1993 as Professor Emeritus. In 1970, he established the Colorado Crop Protection Institute and conducted conferences every year for 22 years while at CSU and for 5 years during retirement. Dr. Bohmont was accorded many honors during his career and has over 100 publications to his name, including his book, "THE STANDARD PESTICIDE USER'S GUIDE." Bert taught CSU Online courses for BSPM through Spring semester 2017.