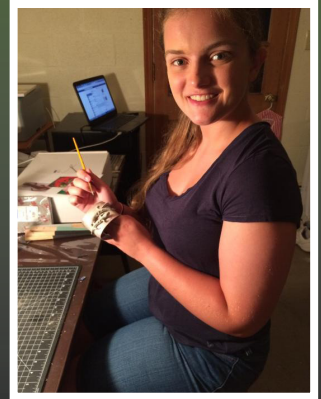


# RADFORD UNIVERSITY

## 3rd Summer Research Celebration

September 16, 2015 | Bonnie Auditorium



### Special Presentation: RARE Experiences with Joy Caughron



## Acknowledgments

Faculty Mentors: Justin Anderson, Cliff Boyd, Donna Boyd, Matt Close, Jason Davis, Tim Fuhrer, Judy Guinan, Nicole Hendrix, Shawn Huston, Michael King, Kim Lane, Allison Pack, Chelse Prather, Christine Small, and Skip Watts

Matti Hamed, Graduate Assistant

Halle Edwards and Jessica Mundy  
Work Study Students

Sally Cox, Event Planning Manager

Ashleigh Price, Honors Academy Administrative Assistant

Members of the OURS Advisory Committee: Roann Barris, Debbie Bays, Candice Benjes-Small, Corey Cassady, Tom Cruise, Devin Dausin, Jason Davis, Nicole Hendrix, Abhay Kaushik, Joe King, Beth McClellan, and Erin Webster Garrett



## **Welcome to the 2nd Annual Summer Research Celebration!**

This past summer, seventeen amazing student-faculty collaborative projects were funded through the Summer Undergraduate Research Fellowships (SURF) program. Today they will get the opportunity to tell their stories and accomplishments. We are grateful for your participation in today's events and hope that they inspire you to achieve similar results, adding to the knowledge and work in your field of study!

### **SURF Program**

The SURF program aims to foster a community of undergraduate research and engaged scholarship during the summer months at Radford University. This program funds a variety of projects where students engage in an original, intellectual, or creative contribution to a discipline. To find about applying to be part of next summer's program contact [ours@radford.edu](mailto:ours@radford.edu) or visit our website at <http://www.radford.edu/content/ours/home.html>.

### **Office of Undergraduate Research and Scholarship**

The Radford University Office of Undergraduate Research and Scholarship (OURS) provides support to campus projects across all disciplines. OURS can help support undergraduate research, scholarship, and creative studies through fiscal support of student travel to present at conferences, printing of professional posters, mentoring students in areas such as best practices in oral and poster presentations, mentoring students with preparing external scholarship and graduate school applications, and the Summer Undergraduate Research Fellowship program. OURS also mentors students with presentations and preparing external applications.

Today represents one of the more public opportunities for OURS to interact with the Radford University community, and it is an honor to get to work with the students and faculty taking on the process of "going where no one has gone before." OURS would like to thank everyone involved with today's events and emphatically say that it is a privilege to get to work with and support you all!

# RARE Experiences

The Radford Amazonian Research Expedition (RARE) helps students of all years and all majors to conduct their own original projects in the Peruvian Amazon rainforest. For more information visit [www.radford.edu/rainforest](http://www.radford.edu/rainforest), [www.facebook.com/radfordrare](https://www.facebook.com/radfordrare), or email Dr. Jason Davis ([jdavis319@radford.edu](mailto:jdavis319@radford.edu)).

1:00 - 1:20 pm      *Introduction and Video Presentation by Jason Davis*

Student Presentations		
1:20 - 2:10 pm	Emily Guise	<i>Testing Antibacterial Properties of Amazonian Native Medicinal Plants</i>
	Diego Kendall	<i>The Biogeography of Nutrient Preference in Tropical Wasp Species</i>
	Hanna Mitchell	<i>Using Mathematics to Develop an Integrative Genomic Phylogeny of Fungus</i>
	Sarah Hebert	<i>Presence of Chytridiomycosis Infection in Amazonian Frogs</i>
	Michelle Maurer	<i>Variation in Healing Patterns of Insect-Induced Wounds</i>
2:10 - 2:40 pm	Student Q&A Round Table <i>Jessi Basham, Steve Gallas, Cassie Bonavita, Emily Guise, Diego Kendall, Hanna Mitchell, Sarah Hebert, Michelle Maurer</i>	
2:40 - 2:50 pm	Moshin Kazmi	<i>Life in the Amazon</i>
2:50 - 3:00 pm	Joy Caughron and Jay Caughron	<i>Preparing for RARE 2016</i>

## Schedule of Events

11:00 - 11:15 am	Jessica Wood	<i>Creation of a Non-Human vs. Human Bone Identification Database</i>
11:15 - 11:30 am	Charles Folsom	<i>Mutagenic Characterization of the Bacterial Loop of E. Coli Beta-Glucuronidase</i>
11:30 - 11:45 am	David Foley	<i>A Comparability Study of Digital Evidence of Bone Repair in the Diagnosis of Child Abuse</i>
11:45 - 12:00 pm	Renee Jessee	<i>Behavior and Physiological Correlates of Snake Feeding Performance Based on Ingestion Ratio</i>
3:00 - 3:15 pm	Joel Schmidt	<i>Forecasting the Progress of Global Development</i>
3:15 - 3:30 pm	Shane Brandes	<i>Sex Based Differences in Parental Care in Response to Predation Risk in Eastern Bluebirds (<i>Sialia sialis</i>)</i>
3:30 - 3:45 pm	Lindsay Lesure	<i>Characterization and Binding of Amino Acid Mutants F365Y and F365W of E. Coli Beta-glucuronidase</i>
3:45 - 4:00 pm	Caroline Leggett	<i>Selu Soundscape</i>
4:00 - 4:15 pm	Jordan Snelgrove	<i>Optimization of a Density Functional for Use with Endohedral Metallofullerenes</i>
4:15 - 4:30 pm	Cassie Bonavita	<i>Examination of Intestinal Bacteria in Mosquitoes in the Amazon Rainforest in Relation to Various Arboviruses, Specifically Dengue Fever</i>

## Schedule of Events

4:30 - 4:45 pm	Sharon Roller	<i>Pediatric Antemortem Healing Standards Based on Microscopic Analysis of Fractures in Known Forensic Child Abuse Cases</i>
4:45 - 5:00 pm	Annie Rudasill	<i>The Effects of Micronutrients on Growth, Development, and Herbivory</i>

## Posters & Demonstration

12:00 - 1:00 pm	Hannah Bell	<i>Top-Down vs. Bottom-Up Formation Mechanism for Yttrium Carbide Fullerenes</i>
	Robert Huber	<i>Mountain Lake Alternative Water Supply Feasibility Study</i>
	Burke Staunton	<i>Chemical Transformation of Precious Metal Clay to Solid Silver</i>
	Christina Poole	<i>Three Realms of Law Enforcement Experience: Implications for Use of Force</i>
	Jean-Francois Racinet	<i>Development and Testing of a Scanning Tunneling Microscope for Use in Ultra-High Vacuum</i>
	Ashley Sheretz and Marisa Dameron	<i>Survey of Insect Diversity in Coastal Tallgrass Prairie</i>
	Zach Pillis	<i>Phenology of Insect Diversity in a Restored Prairie</i>

We would love to hear what projects are underway on campus, what challenges exist for expanding current work with undergraduates, and how OURS can support your efforts! OURS can be contacted at [ours@radford.edu](mailto:ours@radford.edu) or 540-831-7203 and is located in 706 Fairfax, Suite B. To learn more follow us on Facebook ([www.facebook.com/RUOURS](http://www.facebook.com/RUOURS)) or visit our website ([www.radford.edu/ours](http://www.radford.edu/ours)).

Sincerely,

Joe Wirgau

Director of the Office of Undergraduate Research and  
Scholarship



See You

Next

Year!