

# The River Studies & Leadership Certificate Program: Overcoming Obstacles & Building Bridges

RIVERS STIR OPPORTUNITIES TO LEARN AND EXPLORE. THEIR FUTURE WILL REQUIRE A BALANCE OF SCIENCE, POLICY, MANAGEMENT AND EDUCATION. YOU CAN CHART YOUR PATH AS A RIVER PROFESSIONAL!

INTERESTED IN PURSUING A RIVER MANAGEMENT AND LEADERSHIP CERTIFICATE ?  
YOUR RSLC FACULTY ADVISOR IS:

THE RIVER STUDIES AND LEADERSHIP CERTIFICATE (RSLC)

Participating institutions include Colorado Mesa University, Prescott College, Sierra Nevada College, Minnesota State University, Northern Arizona University, University of Utah, Virginia Commonwealth University and Western Washington University.



## Session Goals and Objectives

- Share information on the certificate program
  - implementation across universities,
  - Program history,
  - Current status,
  - challenges overcome, and challenges that remain;
- Identify opportunities among panelists and river professionals to:
  - Collaborate on curriculum development,
  - support internship opportunities, and
  - help placing certificate graduates into exciting river-focused careers.

# River Studies and Leadership Certificate Program

Cultivating the next generation of students inspired to pursue careers as river professionals

Eight schools currently enrolled in Program

Two additional schools poised to join in 2019

Opportunity for your alma mater to join RSLC?



# 8 RSLC Schools



# RSLC Course Work

## Core Courses (1 course in each)

- Geographic Information Systems
- River Science
- River Policy
- Swiftwater Rescue

## Emphasis Area (2 courses)

- River Science
- River-based Policy and Management
- River-based Recreation, Education and Tourism

## Professional Experience



# Presenters

- Moderator: John Gangemi, Director, RMS River Training Center, [john@river-management.org](mailto:john@river-management.org)
- Denielle Marie Perry, PhD, Assistant Professor, School of Earth Sciences and Environmental Sustainability, Northern Arizona University, [Denielle.Perry@nau.edu](mailto:Denielle.Perry@nau.edu)
- Tammi Laninga, PhD, Department of Environmental Studies, Western Washington University, [tammi.laninga@wwu.edu](mailto:tammi.laninga@wwu.edu)
- Andy Rost, PhD, Associate Professor, Science Department, Sierra Nevada College, [arost@sierranevada.edu](mailto:arost@sierranevada.edu)
- James Vonesh, PhD, Assistant Director & Associate Professor, Center for Environmental Studies, Virginia Commonwealth University, [jrvonesh@vcu.edu](mailto:jrvonesh@vcu.edu)
- Mathieu Brown, Faculty, Adventure Education & Environmental, Prescott College.
- Student representatives from participating RSLC schools



[School of Earth and Sustainability | School of Earth and Sustainability](#)

# Rivers & Rifts: The geology, ecology, & policy of the Río Grande & Río Chama

June 2-9, 2019

- Rafting 3-day Rio Chama + 1-day Rio Grande Lower Gorge
- 2 days terrestrial exploration of Rio Grande del Norte National Monument

4 NAU faculty: 2 geologists, 1 aquatic ecologist, 1 geographer + Possible collaboration with VCU



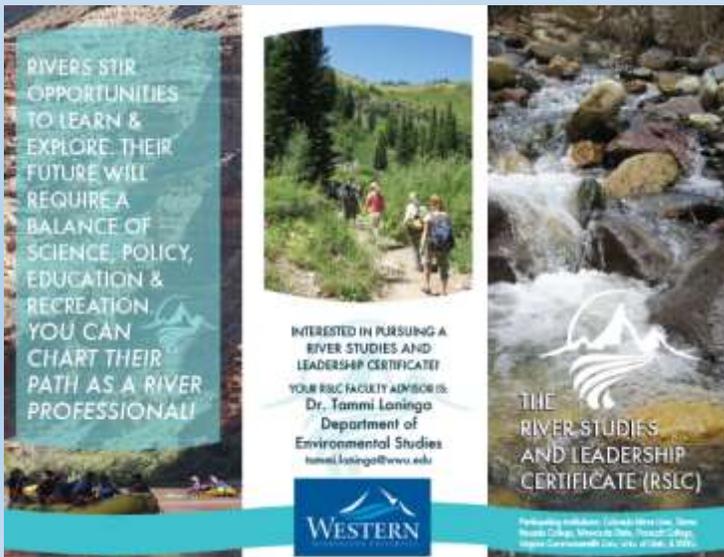
# Joined RSLC in 2016



Current Status: 6 students (1 policy, 2 recreation, 3 science)

## Certificate Marketing

### Brochure & Flier



### Class Presentations & Speaker's Series

## River Studies & Leadership Certificate (RSLC)

- Offered by the **River Management Society (RMS)**
- Gain a **foundation of knowledge, skills and experience** in river-based science, policy, conservation, education, and recreation
- Design & complete a **personalized academic program with courses from WWU** to meet certificate requirements
- Interested? Email: [Tammi.Laninga@wwu.edu](mailto:Tammi.Laninga@wwu.edu)
- Check out the website: [https://huxley.wwu.edu/river\\_studies\\_and\\_leadership\\_certificate](https://huxley.wwu.edu/river_studies_and_leadership_certificate)

| One course from:   | Emphasis Area (2 courses)   | Professional Experience (equivalent to 2 credit hours)  | Oral/Written Presentation   |
|--|---|---|---|
| <ul style="list-style-type: none"> <li>• Geographic Information Systems</li> <li>• River Science</li> <li>• River Policy</li> <li>• Swiftwater Rescue</li> </ul> | <ul style="list-style-type: none"> <li>• River Science</li> <li>• River-based Policy &amp; Management</li> <li>• River-based Recreation, Education &amp; Tourism</li> </ul> | <ul style="list-style-type: none"> <li>• Internship</li> <li>• Paid work (e.g., seasonal)</li> <li>• Independent study</li> </ul> | <ul style="list-style-type: none"> <li>• Present at RMS Symposium</li> <li>• Write article for RMS Journal</li> </ul> |

### Website



# Challenges & Opportunities



## Challenges

- Certificate courses offered by several departments
- Many courses have pre-reqs or are major restricted
- Do not have a stand alone swift water rescue or river safety course
- Creating a RSLC cohort

## Opportunities

- Making RSLC available to WWU Peninsula students
- Collaborating with other WWU faculty on interdisciplinary field course & options for cross-institutional courses
- Developing an 8 hour swift water safety course with WWU's





SIERRA  
NEVADA  
COLLEGE



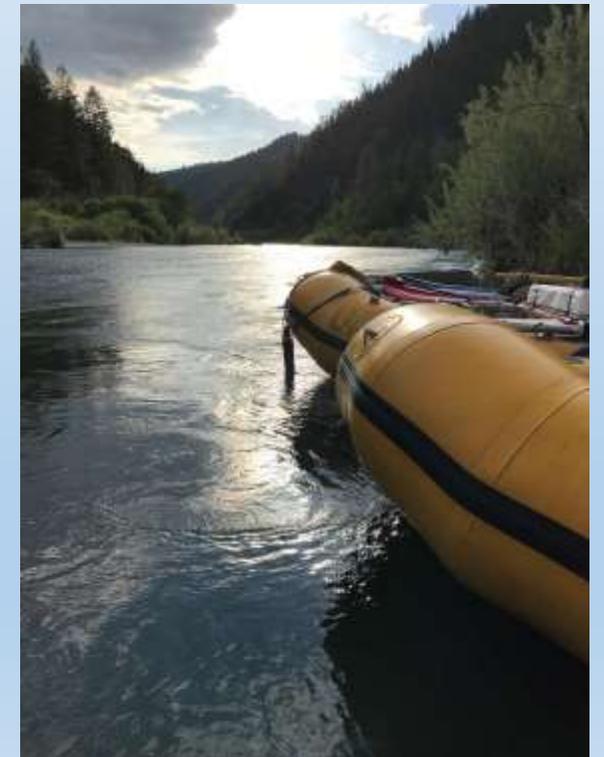
- Small private college in Incline Village, NV
- In the Lake Tahoe basin, 2 blocks away from Lake Tahoe
- Around 500 undergraduates
  - Strong Environmental Science Program
  - Strong Outdoor Adventure and Leadership Program
- Joined the with RLSC program starting in 2015
- 2 SNC faculty directly involved with RLSC program
  - other faculty teach a range of courses to support RLSC





SIERRA  
NEVADA  
COLLEGE

- Curriculum
- Location support significant amount of field work
- Many 1 -3 Day trips on The SF American River
  - commercial license on SF American
  - run a wide trips; academic/recreational
    - many run by students
- Flagship course
  - Rogue River Expedition
    - Two classes run concurrently
      - Environmental Science Class
      - Outdoor Adventure and Leadership



# Virginia Commonwealth University



**RVA!**



**Monroe Campus**



**Rice Rivers Center**

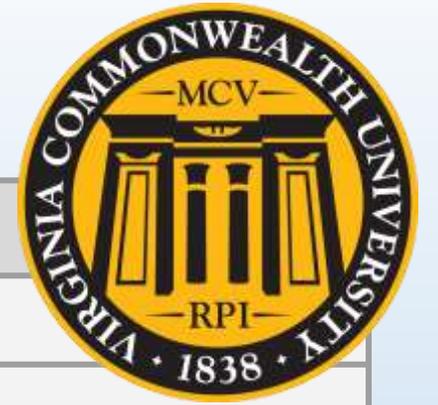
# VCU-RMS River Studies & Leadership Certificate Program



Established Fall 2016



# VCU-RMS RSLC Faculty



| Faculty                 | Department                       | Area of Expertise                             |
|-------------------------|----------------------------------|---|
| 1. James Vonesh         | Environmental Studies            | River Science                                 |
| 2. Dan Carr             | Biology                          | River Science                                 |
| 3. Greg Garman          | Rice Rivers Center               | River Science                                 |
| 4. Paul Bukaveckas      | Environmental Studies            | River Science                                 |
| 5. Dan McGarvey         | Environmental Studies            | River Science                                 |
| 6. Steve McIninch       | Environmental Studies            | River Science                                 |
| 7. Joey Parent          | Outdoor Recreation & ENVS        | River-based Recreation, Education and Tourism |
| 8. Karl Schmidt         | Outdoor Recreation & ENVS        | River-based Recreation, Education and Tourism |
| 9. Joe Wood             | Chesapeake Bay Foundation & ENVS | River-based Policy and Management             |
| 10. Jonet Prevost-White | Richmond City & ENVS             | River-based Policy and Management             |
| 11. Bud Watson          | VA Wilderness Committee & ENVS   | River-based Policy and Management             |
| 12. Lynn Crump          | VA DCR & VA Scenic Rivers        | River-based Policy and Management             |

# VCU-RMS RSLC Students



| Name                     | Department                   | Level                | Competition |
|--------------------------|------------------------------|----------------------|-------------|
| <b>1. Taylor Woods</b>   | <b>Environmental Studies</b> | <b>Graduate, MSc</b> | <b>2018</b> |
| 2. Katie Schmidt         | Environmental Studies        | Graduate, MSc        | 2019        |
| 3. Richie Dang           | Environmental Studies        | Graduate, MSc        | 2019        |
| <b>4. Reid Anderson</b>  | <b>Biology</b>               | <b>Graduate, MSc</b> | <b>2018</b> |
| <b>5. Rachel Moffatt</b> | <b>Environmental Studies</b> | <b>Undergraduate</b> | <b>2018</b> |
| 6. Thomas Tadesco        | Environmental Studies        | Undergraduate        | 2019        |
| 7. Cooper Sallade        | Environmental Studies        | Undergraduate        | 2019        |
| 8. Jacob Korona          | Environmental Studies        | Undergraduate        | 2019        |
| 9. Elizabeth Kruegler    | Environmental Studies        | Undergraduate        | 2019        |
| <b>10. Thomas Franco</b> | <b>Biology</b>               | <b>Undergraduate</b> | <b>2018</b> |
| 11. Abby Wright          | Biology                      | Undergraduate        | 2019        |
| 12. Cali Carter          | Political Science            | Undergraduate        | 2019        |
| 13. Kathryn Rowe         | Political Science            | Undergraduate        | 2019        |

# VCU's first RSLC cohort

Reid Anderson, MSc Biology



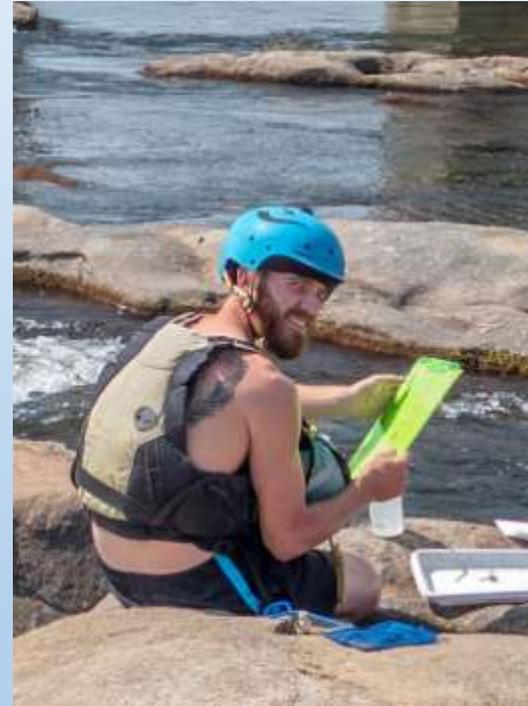
Spatial and temporal distributions of larval clupeid fishes in a tidal freshwater system

Taylor WOODS, MSc ENVS



Assessing the influences of biotic and abiotic factors on the distribution of the American eel

Thomas Franco, BSc Biology



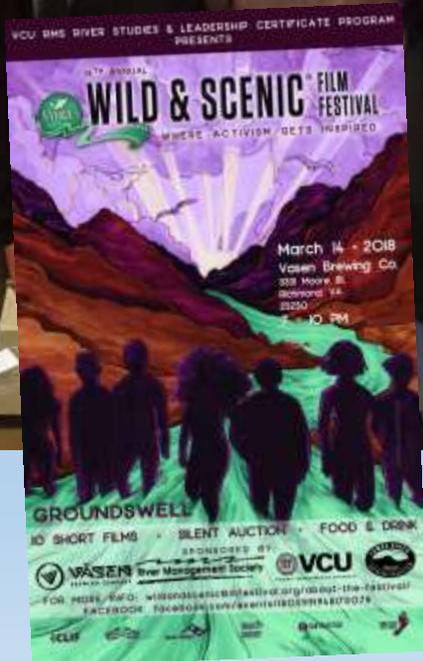
Comparative ecology of river rock pools of the James and Potomac Rivers

Rachael Mofft, BSc ENVS



James River Association water quality monitoring intern, overseeing their James river watch program

# RSLC Fundraiser: Wild & Scenic Film Festival



# RSLC Team building: King of the James



# Origin story: Footprints on the James

Want to get outside and learn this summer?

*Footprints on the James: The Natural and Human History of the James River Watershed*  
May 19 – June 19, 2014

**The mighty James.** The river where our commonwealth and country were born. How has this river shaped who we are? How have we shaped the river? Join historians, biologists and outdoor experts on an expedition through time and the James River watershed to explore these questions first hand. Living out-doors and traveling by foot, canoe, bateau, raft, and sea kayak we will trace the path of a raindrop from Blue Ridge to tidewater over five weeks, examining the intersection of human and natural history as we make our way.

Students will receive 3-credits in 2 upper level History and Biology courses, training in outdoor living skills and safe river and backcountry travel techniques. Enrollment limited to 12. Faculty to student ratio 1:3. Est. cost is \$600 for food, accommodations, and non-personal equipment, plus 6 credits tuition. Partial merit-based scholarships are available. [carrdf@vcu.edu](mailto:carrdf@vcu.edu), [bjdaugherty@vcu.edu](mailto:bjdaugherty@vcu.edu)

**For application information:**  
[www.facebook.com/FootprintsOnTheJames](https://www.facebook.com/FootprintsOnTheJames)  
[www.footprintsonthejames.vcu.edu](http://www.footprintsonthejames.vcu.edu)



# Rock pools & experiential STEM education



# Scenic Resource Assessment &



Lynn Crump, VA DCR Scenic Rivers

# LOWER SALMON RIVER IDAHO

## STUDY ON THE RIVER OF NO RETURN

JUNE 25 - JULY 26

ENVS 491 - Expedition Planning  
ENVS 491 - American Wilderness Policy  
BIO2391 - Natural History of Lower Salmon River



Applications due 15 April  
<https://goo.gl/forms/vRAYNGb3TauVWUrk2>



VCU WINTER STUDY ABROAD / DEC 27 - JAN 15  
**SOUTH AFRICAN SUMMITS TO SEA**  
3 CREDITS / UPPER LEVEL ELECTIVE / LAB / CAPSTONE



**APPLICATION DEADLINE OCT 20!**

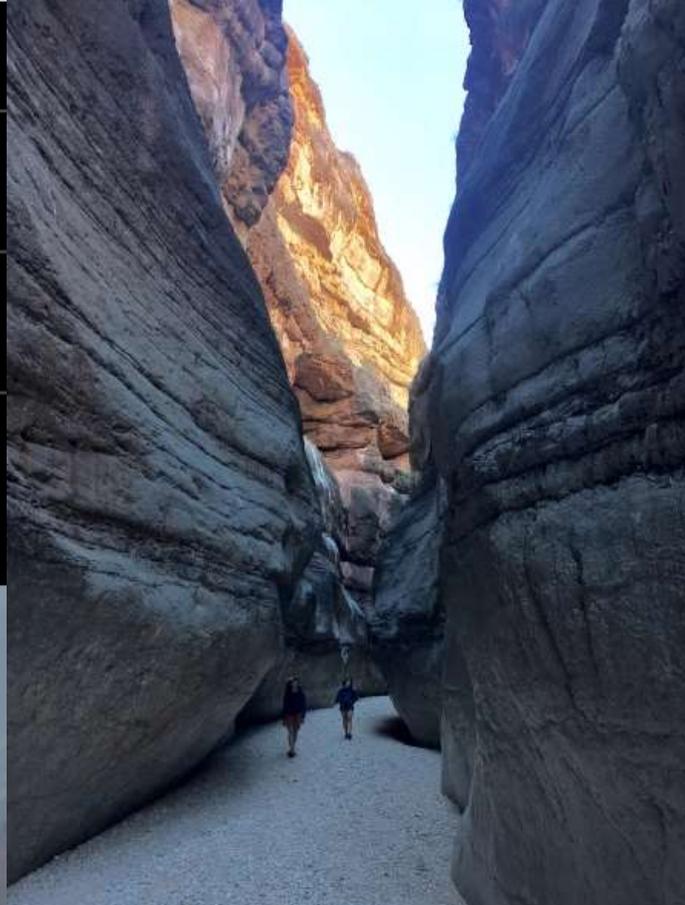


HOME

BLOG

WHO WE ARE

CONTACT



Prescott College



# GRAND CANYON SEMESTER

# **RSLC Consortium: Can we become larger than the sum of our parts?**

Great American Rivers field course curriculum?

Eastern Rivers: James (VCU)

Central Rivers: Mississippi (Augsburg College)

Mountain Rivers: Colorado (NAU, Prescott), Rio Grande/Chama (NAU), Salmon (VCU)

Pacific Rivers: Rogue (SNC)



## Discussion

- How do we increase awareness about the program among agencies and other organizations?
- Ideas to help place certificate graduates into exciting river-focused internships and careers.
- Funding sources for Certificate students to participate in Symposiums and conferences?
- River permits for RSLC field courses