

# **National Park Service Project Completion Report Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)**

**Project Title:** Science Communication Internship at the Crown of the Continent  
Research Learning Center, Glacier National Park, Summer 2013

**Project Code:** UMT-283; P13AC00277

**Type of Project (Research, Technical Assistance or Education):** Education

**Funding Agency:** National Park Service

**Partner University:** University of Montana

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**NPS Technical Expert: Melissa Sladek, Science Communication Specialist CCRLC; P.O.  
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**Principal Investigators (with complete contact information):**  
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**Start Date of Project:** April 1, 2013

**End Date of Project:** May 31, 2014

**Funding Amount:** \$17,838

**Project Summary, including descriptions of products, work accomplished and/or major results. If the information is restricted (e.g. location of endangered species or cultural resources), indicate the title and location of the final report. Also add web sites where project-related information may be found.**

*Report by intern, Jim Giese-Science Communication Technician, 2013-2014*

Overall my internship with the Crown of the Continent Research Learning Center exceeded what I expected. Going into the summer I was excited, and a bit nervous, about the position that would involve being in an office—which was something I had never been exposed to.

Immediately the staff were very welcoming which made the first week comfortable for me. Early on I was told that the primary objective for the summer was to help to get the CCRLCs website updated. I was excited for this project and after training on Drupal and a review of expectations of content and design, I started the process of whittling away at the list of subjects that were required to complete the project.

One of the most enjoyable aspects of updating the website was the broad diversity of the subject matter. Not only did it allow me to research somewhat familiar subjects, it allowed me to

learn about material that I have never been exposed to. Throughout the whole process, Melissa was key in guiding me to people and material that allowed me to finish the content for each subject, post the information to the web site, and move on to the next subject.

Once the Drupal project was completed I was able to contribute an article for the CCRLC's fall newsletter. I was allowed to choose the subject matter from a list of potential ongoing projects in Glacier National Park. I opted to interview Blake Hossack regarding his work on amphibians in the park. This was another great experience for me. First off, it allowed me to practice interviewing skills which had been very minimal for me in the past. My first interview with Blake was in the CCRLC office where he gave me a broad overview of the work he is doing in the park and elsewhere. I also met with him a second time at Two Medicine while he was conducting an outdoor presentation of his project to students of the Flathead Biological Station. Beyond gaining interviewing practice, I also gained valuable experience in drafting a journalistic piece—including multiple revisions that were key to me in further understanding of what is expected when writing for a broad audience.

I also had the opportunity to create a new Resource Brief on bats and update numerous others. I was able to practice interviewing and photography skills once again while working on the bat Resource Brief and tag along with research staff as they netted bats for a night. Beyond furthering those skills, working on the Resource Briefs allowed me further develop my skills in layout--particularly in a layout design that had specific parameters. I also had the opportunity to provide a couple summaries of research projects for the CCRLC's web site. This was an enjoyable, and challenging, project and allowed me to further practice condensing scientific work into a concise and understandable version that is accessible to a wider audience.

Throughout the summer, and beyond the written work, Melissa encouraged me to take pictures that could be used in various mediums—on crownscience.org, in Resource Briefs, and on social media. I found this freedom and the use of some of my pictures enjoyable and was also a learning opportunity. Melissa offered her opinion on which pictures would work better in which medium as well as giving her opinion and reasoning for how a photo could be improved. What attracted me to this internship in the first place was that it would allow me to hone my skills in science communication. I do feel my skills improved throughout my time with CCRLC. I am still impressed with the skills that the staff of CCRLC have for communicating science to other staff within the NPS as well as to the public. Coming from a science background, it was easy for me to provide the technical side to a subject, but one of the most impressive skills I experienced during the internship was the ability of all of the staff to communicate science effectively and in common sense approach. Although I do feel my skills improved in this area, I do believe I will strongly benefit from what I have learned and I aspire to reach the level that comes so naturally to the CCRLC staff.

There is no doubt that the skills I gained working with the CCRLC will be utilized as I continue in my career. Having a word limit on projects was a lesson in word concision and something that has already stuck with me on my written work outside of the internship. Obviously, if I choose the path as a writer, in whatever form that may be, the skills I learned will transfer directly to the pages I write. Even if I were to choose to jump back into a career in wildlife research, I now have a better understanding of how to communicate that research to the general public, landowners, co-workers, and friends and family. – Jim Giese-Science Communication Technician, 2013-2014

**Number of students participating in this project: undergraduates, graduate students, degrees conferred. 1 graduate student**

**Lessons Learned from this project:** It is difficult to pinpoint what could improve the internship. I think back to when people have asked me about how I liked the summer and each time everything I had to say was positive. Coming into the internship, my only hesitation was that I was not used to spending all day in an office. But, it was made very clear to me prior to the taking the position that that would be the case. And both Melissa and Tara were always eager to see me head outside for a day to conduct interviews, grab a few photos for posting on social media, or help a research crew. Otherwise, there were times when I waited on responses from specialists in order to finish drafting projects, but it understandable that summer is a busy time for staff and researchers in Glacier.

**Other RM-CESU agencies or research partners who participated in this project:**  
USGS, University of Montana

# **National Park Service Project Completion Report Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)**

**Project Title: Science Communication Internship at the Crown of the Continent  
Research Learning Center, Glacier National Park, Summer 2014**

**Project Code: UMT-299; P14AC00479**

**Type of Project (Research, Technical Assistance or Education): Education**

**Funding Agency: National Park Service**

**Partner University: University of Montana**

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**Start Date of Project: April 15, 2014**

**End Date of Project: May 31, 2015**

**Funding Amount: \$12,454**

**Project Summary, including descriptions of products, work accomplished and/or major results. If the information is restricted (e.g. location of endangered species or cultural resources), indicate the title and location of the final report. Also add web sites where project-related information may be found.**

During his time at the Crown of the Continent Research Learning Center (CCRLC), Colin played an important role in communicating science research to staff and the public through the creation of exceptionally written educational materials. His knowledge of journalism, ability to write creatively and accurately, and his skill with interviewing and recording audio led to many successful products, including newsletter articles, resource briefs, and audio clips.

Colin also gave new life to the CCRLC's communication program when he shared his ideas on how to make our online science communication pieces more interactive. Using examples from award winning, online journalism sources, we created a new, interactive featured article on our website. The article incorporates photos, text, audio, and interactive maps, providing the reader with a richer experience. Colin was instrumental in the product's success as he conducted interviews, wrote the story, provided the photos, and recorded and edited the audio clips

associated with the article.

In addition to the success of the “featured article,” I assigned Colin the difficult task of combining existing resource briefs and coming up with concise, updated, and well-written products on harder topics like fire and climate change. I assigned these duties to Colin because of his talent and skill in editing and writing.

It was a great pleasure to work with Colin and I truly believe he helped create a stronger, more forward-thinking communication program at the Crown of the Continent Research Learning Center. His talents will undoubtedly take him far with whatever career he chooses, but I am hopeful he will continue to communicate science and research to diverse audiences, bringing environmental issues and topics to life.

**Number of students participating in this project: undergraduates, graduate students, degrees conferred. 1 graduate student**

**Lessons Learned from this project:** The program was very successful this year, benefitting the RLC with a high quality, productive intern, and benefitting the student with the real world experience for career preparation.

**Other RM-CESU agencies or research partners who participated in this project:**  
**USGS, University of Montana**

# **National Park Service Project Completion Report Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)**

**Project Title: Science Communication Internship at the Crown of the Continent  
Research Learning Center, Glacier National Park, Summer 2015**

**Project Code: UMT-311, P15AC00751**

**Type of Project (Research, Technical Assistance or Education): Education**

**Funding Agency: National Park Service**

**Partner University: University of Montana**

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**Start Date of Project: April 20, 2015**

**End Date of Project: September 30, 2015**

**Funding Amount: \$11,740**

## **Project Summary,**

Report from the student, Robina Moyer: This summer I had the opportunity to work as a science communication intern at the Crown of the Continent Research Learning Center (CCRLC) in Glacier National Park (GNP). In this position I worked directly with Melissa Sladek, CCRLC's Science Communication Specialist, and was able to witness and experience the dynamic nature of science communication in the National Park Service (NPS). I assisted in the creation of several print products for GNP, accompanied a United States Geographic Survey (USGS) researcher into the field for a feature article, and began a fact sheet for Grant-Kohrs Ranch National Historic Site, which is also serviced by the CCRLC.

For Glacier, I created a resource brief on northern hawk owls and updated one on fire and invasive plant species. These two-page briefs are intended to provide information to park staff and the interested public about a variety of park resources. Creating them showed me one of the challenges of science communication – you must educate yourself enough to be able to write and speak intelligently about a topic with researchers and biologist, but then interpret that information into laymen's terms, in an articulate and concise manner. On the surface this seems

like a simple task, but after a week of research about northern hawk owls, you find yourself throwing around obscure jargon that only an expert would understand and it becomes a challenge to write a piece which is accessible to a general audience.

In addition to bridging the gap between expert and generalist in your writing, science communication requires you to walk the line between scientists, researchers, interpreters, educators, administration and park visitors in your daily interactions. While I only got a taste of this dichotomy, I had many valuable conversations with Melissa about the experience of navigating between these worlds. It takes significant effort to earn the trust of each of these groups when they do not see you as fully belonging to any of them. As I hope to ultimately work in environmental science or conservation, this deeper recognition of differing communication and interpersonal needs was an important take-away from this position.

To achieve effective science communication, collaboration is key. While I have worked in collaborative environments before, this summer afforded me the chance to see what this looks like within the Park Service. Becoming familiar with the Park Service culture, hierarchy, and dynamic was a significant part of what I learned over the summer. For my own work I had to understand how departments related to one another, what appropriate forms of communication and decorum were between departments, and the role of each department to the park as a whole. For example, a slow response from someone in the Integrated Pest Management division was the result of her team being involved in wildland fire response, which I would not have foreseen. Learning about connects like this fascinated me and broadened my horizons as to the varied career positions in the Park Service.

On a daily basis, this internship helped me further my organization and prioritization skills. Working on several projects at once kept things interesting, but required that I stay on top of communication with researchers or other park employees and take detailed notes on each project so that I would know where I had left off. As the summer came to an end and all my projects inevitably came together at once, I needed to be able to prioritize tasks. This involved completing projects that needed Melissa's review first, finding alternatives for contacts who were busy fighting fires, and tracking down photos from local wildlife photographers. In addition, much of my work was done independently and although Melissa was always there for guidance, I needed to stay on task and manage my time appropriately.

The chance to assist with the CCRLC's other programs was a wonderful addition to my internship. Going through High Country Citizen Science training gave me a better understanding of my co-workers' jobs, while increasing my knowledge of Glacier's wildlife. Assisting Melissa with her projects gave me more experience with audio and video recording and highlighted the necessity of being well-versed in current technology. In some ways this aspect of the job was more challenging than being a liaison between researchers and the public. But it reinforced that effective communication requires you to be fluent in a variety of technology and media platforms. Along these lines, I learned about the challenges of making online products accessible to all audiences. But also had conversations about the importance of this step, especially for a government agency.

Overall, this position was an incredibly positive experience. Having previously worked for a private-sector environmental consulting company, I was leery of working with an agency known for bureaucracy (like most government agencies). While this was true on occasion, I found that on the whole I thoroughly enjoyed the Park Service culture and was continually eager to learn more about NPS, its mission, and the passionate people who are carrying out that mission. Working with people who strongly believe in climate change and are utilizing Glacier as a

classroom to teach the public about it was inspiring and perhaps the highlight of my internship. Workwise, this took many forms including office conversations about fire trends and the opportunity to accompany a USGS ecologist into the field for phenology research. Personally, it led to many discussions around the kitchen table, the fire pit, or on the trail about the trends and changes taking place around us. This summer showed me the appeal of working for the Park Service in the future, while introducing me to some amazing people who work for the park currently. – Robina Moyer

**Number of students participating in this project: 1 graduate student**

**Lessons Learned from this project:** The only true drawback to my experience was some difficulty in communication between the University of Montana and the NPS which led to a delay in the student's paychecks. A clearer process for all parties involved could help eliminate this issue in the future. Additionally, even though the student knew this was an office-based job from the outset, it was at times challenging to spend so 40 hours a week inside when you're living in such an amazing place.

**Other RM-CESU agencies or research partners who participated in this project:**

USGS, University of Montana