One funded MS student position

**Discipline Areas:** Forest Ecology  
**Research Topic:** Effectiveness of Aspen Restoration Treatments  
**Start Date:** August 2020  
**Compensation:** 2.5 years of $18,000 annual stipend plus benefits (tuition, fees, and insurance)

Utah State University’s Department of Wildland Resources seeks an MS student to work on a project focused on aspen restoration. Quaking aspen forests are of particular importance because they contribute disproportionately to biodiversity and provide habitat for a wide range of wildlife. They also of interest to resource managers because aspen is frequently cited as a fuel break; it is thought to be less likely to support crown fire and more likely to slow fire spread than other forest types. In order to promote aspen stands where they have become degraded, to increase the presence of aspen where it is rare, to improve wildlife habitat, and to reduce the risk of undesired wildfire, managers frequently implement aspen regeneration treatments. Recently, a private company called 106 Restoration has pioneered a technique to topple trees via cable and roller drum (106 method). Please see [https://vimeo.com/364855602/914e5f4a5e](https://vimeo.com/364855602/914e5f4a5e) for a video of the process. However, no research is available to date on its efficacy in meeting treatment objectives.

The student will focus on aspen regeneration. This will include gathering scientific literature and, in the field, quantifying regeneration of aspen and associated stand conditions, pre- and post-treatment. We will also quantify the impact of treatments on wildlife forage and activity, herbivory, and invasive species. Second, treatment efficiency will be evaluated by quantifying time and cost per acre spent on treatments (data supplied by 106 Restoration). This student will be advised by Dr. Justin DeRose ([http://qcnr.usu.edu/labs/derose/](http://qcnr.usu.edu/labs/derose/)), but will work closely with a second MS student.

This team effort will also include the help of 1 field assistant each summer. The student will start in the fall of 2020 and is expected to finish in December 2022. The student will be expected to maintain clean, organized databases, make major contributions to reports due to the State of Utah in December 2022, and publish their work in peer-reviewed scientific journals. You will have opportunities to present your work to diverse audiences, including private landowners, policymakers, and the scientific community. Candidates should have earned a BS in a field related to forestry or ecology; highly-qualified candidates with degrees in other fields will be considered. Preferred qualifications include quantitative skills and field experience. Review of applications will start immediately and continue until the position is filled.

To apply, please email the following to Justin DeRose ([justin.deros@usu.edu](mailto:justin.deros@usu.edu)) and Larissa Yocom ([larissa.yocom@usu.edu](mailto:larissa.yocom@usu.edu)): 1) a cover letter describing your experience and interests, 2) a CV or resume, 3) unofficial transcripts, 4) GRE scores, and 5) a list of three professional references and their contact information.