

**Moss and Biocrust Project Update**  
**December 15, 2014**  
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**Mandy Slate**



A moist and mild weather system created ideal conditions for Mandy and I to assess moss growth in the enclosure experiment. In the spring, we will photograph each plot and begin to quantify results. Already we can detect trends.

Plots that we inoculated fall 2013 and spring 2014 both exhibit copious moss growth. It appears that using jute increases the likelihood of establishment and amount of moss present when we apply the moss by slurry. In plots that we applied plugs, the moss established regardless of jute presence. *Syntrichia ruralis* constitutes the species of greatest abundance. Although we can't visually detect many biocrust organisms, we noted the presence of small lichen thalli of *Cladonia* sp.

The ability to re-establish a healthy moss and crust community, using a simple method that requires no additional watering or fertilizing, provides a useful tool in restoring degraded land. Further work will focus on quantifying these results and determining which combination of application methods represents the most efficient and successful for larger scale applications.





*Syntrichia ruralis* carpets the ground where we applied a slurry of moss fragments to bare soil. Moss reduces erosion, enhances nutrient cycling, and increases water holding capacity. A healthy moss and biocrust community can create a positive restoration trajectory.





Plugs of *S. ruralis* established with or without jute.





Lichen appears in plots inoculated with biocrust (red arrows).