
Abstract:

The H.J. Andrews Experimental Forest (HJA) in the Oregon Cascades is one of 24 sites in the Long-Term Ecological Research (LTER) Network. It supports research on forests, streams, and watersheds, and fosters collaborations between ecosystem science, education, natural resource management, and the humanities. The site currently hosts 85 interdisciplinary research projects, as well as experiential training for undergraduate and graduate students. In addition, the HJA runs a vibrant professional development program for teachers. Because much of the HJA’s terrain is steep and occupied with sensitive research materials, middle and high school visits are limited to tours in designated areas. The Discovery Trail was developed in 2011 as a place for visitors (~1800 in 2014) to explore the forest and site research themes from HJA headquarters, but it is not yet amenable to unguided educational exploration. We have designed an interpretive learning trail and field trip support framework for the Discovery Trail. Our primary objective is to educate students about place while guiding them to reflect upon their own relationships with place and personal responsibility for stewardship behavior. Long-term place-based conservation research is woven with creative writing from the HJA writer's residency program and paired with reflection and creative inquiry. Interactive trail stops enable students to engage the forest from multiple perspectives. The Discovery Trail is wired for intranet wifi and content and assessment will be delivered by digital media (i.e. iPads). We will evaluate conceptual learning according to the Framework for the Next Generation Science Standards, as well as observe affective changes in sense of place, empowerment, and expressions of care or empathy through analysis of student responses to the trail activities. Because conservation attitudes require not just knowledge about systems, but also emotional connections to the material, our learning experience will incorporate art, ethics, and reflection alongside environmental science and natural history.

Keywords: education; human dimensions; public assessments; forest ecology; forest ecosystems;

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