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Summer Youth Forestry Institute

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Summer Youth Forestry Institute

Abstract

The Summer Youth Forestry Institute (SYFI) was developed to inspire youth through experiential learning opportunities and early work experience in the field of natural resources. Declining enrollments in forestry and other natural resource careers has made it necessary to actively engage youth and provide them with exposure to careers in these fields. The 2011 SYFI combined Extension Forestry and 4-H objectives by providing both youth development and forest management skills through a paid internship, targeting rural high school students in Snohomish County, WA.

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Introduction

Skilled natural resource managers will be needed to face the environmental challenges and opportunities of the future. There are questions, though, about whether there will be an adequately prepared workforce to meet these challenges (Gupta, Grant, & Strauss, 2012). High school students have a passion for the outdoors, but many are unaware of the possibilities for natural resource careers (Hagar, Straka, & Irwin, 2007; Wellman, 1987). This lack of information about natural resource careers has contributed to significant enrollment declines in college-level forestry programs (Hagar, Straka, & Irwin, 2007). Unfounded fears about low wages and necessary skills further inhibit pursuit of natural resource careers (Sharik & Frisk, 2011), when in reality, college graduates with natural resource degrees face one of the lowest levels of unemployment when compared to other careers (Carnevale, Cheah, & Strohl, 2012).

Washington State University (WSU) Extension developed a program to address these disconnects through the Summer Youth Forestry Institute (SYFI), which is a summer immersion program designed to generate interest in natural resource careers while also providing early job experience and professional connections to help youth pursue such careers. This program was a collaboration between the WSU Extension Forest Stewardship and 4-H Natural Resources programs, a combination of expertise that has been shown to be effective in engaging youth in outdoor education and

stimulating interest in natural resource careers (Gupta, Grant, & Strauss, 2012). Other partners included the U.S. Forest Service and other state, local, and tribal partners. The program was piloted in King County, WA (near Seattle) in 2007 (Grotta & Fleenor, 2008), and then replicated in neighboring Snohomish County in 2011.

Goals and Methods

The goal of the 2011 SYFI was to introduce high school students to natural resource and forestry careers by having them work alongside natural resource professionals as part of a unique and fun summer job opportunity. The target audience was students 16 to 18 years old in rural and suburban communities near the Mt. Baker-Snoqualmie National Forest. Participants were recruited with the help of teachers and career counselors from area high schools.

A comprehensive, competitive application process was conducted using weighted criteria that gave points to youth based on three key areas (outdoor interest, careers in the natural resources, and volunteer experience). The weighted criteria were used to evaluate written applications, and formal interviews to select youth that had a general interest in the outdoors and higher education or career goals related to the environment or natural resources were conducted. Selected youth also demonstrated leadership in volunteer or work assignments. To ensure accessibility to lower-income youth who must earn money during the summer, students received a stipend (roughly equal to minimum wage for the number of hours spent) and transportation to the sites.

The students were trained in ecology, plant identification, forest management, watershed health, data collection, and field navigation. They then gained hands-on experience assisting the Forest Service with post-thinning assessment, trail building, and invasive plant removal. 4-H Challenge Program activities were integrated into the program, using the model of "do, reflect, and apply" as part of engaging in new learning. At the conclusion of the program, the students presented their experience and accomplishments to Forest Service staff and community partners.

Evaluation and Outcomes

The program allowed the students to develop essential skills for entry-level natural resource jobs or secondary technical programs. These skills included data collection, communication, teamwork, and critical thinking. Part of the activities involved forest measurements, which provided skills in applied mathematics, including algebra and geometry. The students also met with a variety of natural resource professionals along the way, exposing them to job options in forestry, wildlife, fisheries, and entomology.

At the completion of the program, the students were asked a series of reflective questions regarding changes in behaviors, career plans, and interests. Four months after the program, WSU Extension staff met with participants in order to assess whether there were any additional changes in their career or school plans. Five out of six participants reported increased interest in natural resource careers. The participants reported an overall increase in their understanding of natural resource career options and enjoyment of working outdoors. Five out of six participants reported that the program inspired a new hobby interest in topics such as ecology, native plant ID, and forest management. All participants expressed interest in repeating the program.

When asked how the program changed their future educational plans, two participants, who had already planned on a natural resource career path, felt they had more options to choose from. One participant, who was interested in computer technology, expressed a better understanding of opportunities to incorporate technology into a natural resource career. One participant began actively pursuing a job with a local Forest Service fire crew at the conclusion of the program. Another participant began exploring career options with the Washington Department of Fish and Wildlife. All participants identified this experience as being valuable for future jobs and essential life skills.

Example participant comments:

- "The Summer Youth Forestry [Institute] opened my eyes to several careers in natural resources. While in the group, I discovered all of the possible job opportunities for mapping software that supported my interest in computers."
- "This summer I learned mostly responsibility of what I was required to do, working with a team, and being open with my work to others. Learning to work with a team was very important to me because I'm often a shy person, when I became grouped with people I really didn't know that... well I just had to get past my social barriers and do what was required."

Conclusions

The SYFI is an approach to address the need for a new generation of natural resource stewards. The program coupled forestry and youth development expertise to expose youth to natural resources careers while providing hands-on experience. The SYFI successfully combined outdoor experiential learning with essential life skill development, exposure to natural resource professionals, and paid work experience. This program also fostered partnerships between WSU Extension, the U.S. Forest Service, state natural resource agencies, and a local tribe. While the pairing of youth with professionals is not a new concept within Extension, what makes this program unique is the combination of this pairing with 4-H Challenge, experiential learning, résumé-building, and "real-world" job experience. Further work is needed to expand this program and evaluate its longer-term impacts on the education and career trajectories of the participants.

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