Promoting Natural resource Jobs with Local Youth and Real Projects

- Provide experience to local and diverse youth
- Collect critical information needed to meet partnership goals
- Share skills related to natural resource stewardship

American Water Resources Association (AWRA) Alaska Chapter Annual Meeting, Juneau - September 19, 2019
Katherine (K.K.) Prussian, Hydrologist, USFS Tongass, Sitka AK 907-747-4240 katherineprussian@usda.gov

Background

- Landslide fatalities in Sitka
- Geo Task Force Working Group
- Field data needs
- Diversity grant opportunity/funding
- Partnership agreement –Tongass Landslide Partnership

Hiring and Training

- Seeking Interest
- Safety Training
- Field Skills
- Data Collection

Soil Depth Mentored Research Project

Hourly: $12/hour

Length of Position: July 29th, 2019- August 23rd, 2019

Contact: Please submit a letter of interest to Callie Simmons at csimmons@sitkascience.org or visit the Sitka Sound Science Center.

Job Description: The Sitka Sound Science Center and the U.S. Forest Service are looking for two field technicians to support geoscience research happening in Sitka. Field technicians will be responsible for collecting important soil depth data needed for future studies on landslide research on Baranof Island. Students will hike into remote sites and pound rebar stakes into the ground to measure how deep soil is across hillsides. The ideal student candidate will enjoy hands-on work with long, rewarding days spent hiking through second growth forests.

Position Timeline: Work Days are M-F from 8am-4:30pm; including a 30min lunch.

Date	Activity:
July 29th	Orientation, Safety Training, Data Collection and Methods Training
July 30th- August 16th	Field Work and Data Processing. Collecting Soil Depth Data in the field. Data Processing will occur every three days or on an as needed basis
August 7th	Mid-project evaluation/check-in
August 19th- August 23rd	Final Report Writing at Science Center
August 30th	Final Report Due

*Dates subject to change based on weather, safety concerns, field conditions, etc.

Collecting Data

Field work for soil depth work

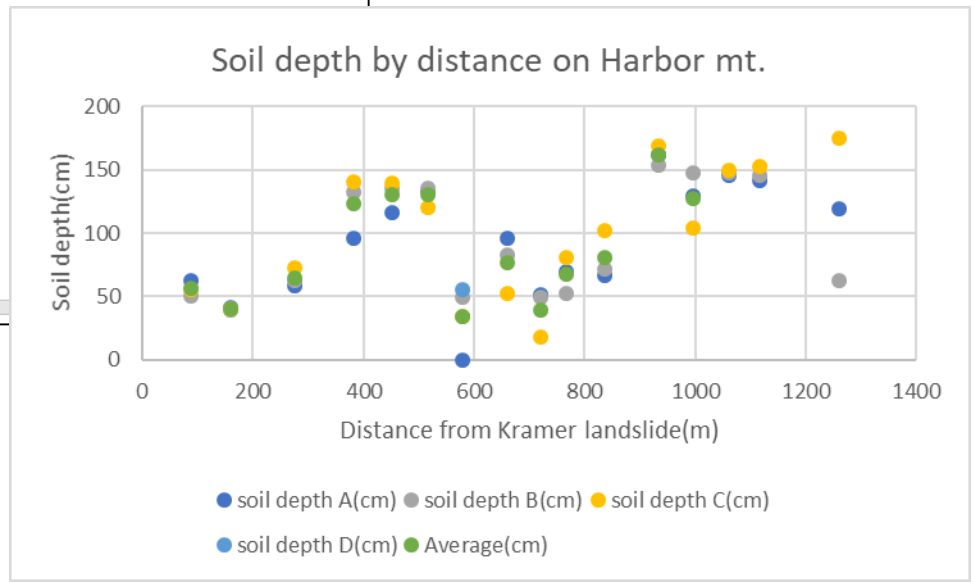
8/20/19

Karl Cranston-Simmons, Eric Alvaradoskal

Harbor Mountain soil depths

Background

Landslides are when earth (trees, logs, soil and rock) slide down a cliff or a mountain. A typical landslide in Sitka is called a debris flow. They are rapid high-impact events that can damage and bury housing and other structures. The reason people are interested in these landslides is so that they can be able to predict them in the future and make some kind of warning system for the town. The people and associations working on this project, referred to as the Sitka Geo Task Force, is the City and Borough of Sitka (CBS), the Sitka Sound Science Center (SSSC), the U.S. Geological Survey (USGS), U.S. Forest Service (USFS), U.S. Forest Service Pacific Northwest Research Station (USFS PNWRS), National Weather Service (NWS), National Park Service (NPS), State of Alaska Division of Geological & Geophysical Surveys (DGGS), Sitka Tribe of Alaska (STA), Shannon & Wilson (S&W), Rand Corp (RAND), and the university of Delaware Disaster Research Center (UDel DRC). What me, other youths, and multiple mentors from the SSSC and the U.S. Forest Service is doing is going out into the field to collect soil data. We measure data such as how far away the transect points that we research are from the landslide, how deep the soil is, its moisture, how steep the location may be, how far away each point may be from one another, and other data. The reason we're doing this is to inform the Sitka Geo Task Force on what the soil and terrain is like, and to know whether it's dangerous or not.



Discussion

What went well: The methods we used and the way we spent our time was something that went well. We were able to quickly collect our data and return to our starting point. We also plan a route to take so we don't waste any time just wondering through the woods.

Possible mistakes: There are a few mistakes we could have made. We once planned a route to 1.20 but that was too difficult to take, and we had to turn back because of the excessive steep slopes and cliffs. There was also a time when the rebar pole we were using was going deep into the ground to the point where we just stopped pounding it and recorded our data with an "at least", even though we could've just have gotten the longer rebar and put it deeper into the ground. Also, 1.14 had many boulders so it is possible we hit a boulder instead of bedrock. At 1.17, we couldn't make it to the target point because of a cliff.

Weather Importance: The weather can play an important part in our data collection because it effects the soil. If it rains a good amount, the soil may be wet, or moist. If there is no rain for a while and it is dry, some of the soil may be dry.

Outcome

- Local engagement in local projects
  - Youth were “excited to be part of something good for the community”
- Empowering youth in land stewardship and workforce development
  - Collected the data
  - Analyzed the data
  - Wrote the report
- Data
  - Valuable information available regarding soil depths and diversity (of depths) across the hillslope behind Sitka

THANKS

- Field Technicians
  - Karl Cranston-Simmons, Student - Pacific High School
  - Eric Alvaradoskal, Student – Pacific High School
- Tongass National Forest – Technical Guidance and Agreement
  - Dennis Landwher
  - Jacquie Foss, Soil Scientist
  - K.K. Prussian, Hydrologist
- Sitka Sound Science Center – Agreement, Training and Supervision
  - Cora Siebert, Geologist
  - Callie Simmons, Research Coordinator