**Smithsonian Environmental Research Initiatives in Alaska**

with Kachemak Bay NERR and Partners on the Southern Kenai Peninsula

July 25, 2019 12:45 PM to 3:00 PM

**~ SITE VISIT GOAL ~**

During this 2.5-hr field site visit, Kachemak Bay NERR staff and their collaborators will share expertise on watershed and estuarine ecological systems on the ground, and how environmental research and monitoring has been informed by and integrated into community engagement processes. Participants will interact with a diverse group of local research and education professionals making valuable connections for moving local and regional conservation science projects and watershed resilience strategies forward.

**~ OBJECTIVES~**

Participants will…

* Understand ecological, economic, and societal benefits of Kenai Lowlands watersheds
* Review local research and monitoring activities with experts who benefit from Smithsonian investments
* Identify existing conservation and engagement activities and how they intersect with Smithsonian Initiatives

**Takeaways:**

How KBNERR is engaging the community around Smithsonian supported topics

How Decision Makers and Stakeholders are using this information

What additional resources or lines of inquiry should be pursued

**~ PROCESS AGENDA~**

**Headwaters** Stariski Creek Meadows

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| **Time** | **ACTIVITIES and OBJECTIVES** | **Personnel** |
| **12:45-3:00**  12:45-1:00 Orientation Break into groups  **Meadow**  **1:00-1:30**  **Station 1**  **1:35-2:00**  **Station 2**  Transit to Bridge  2:00-2:15  **2:15-2:45**  **Station 3/4**  **Bridge**  2:45-3:00  Group Debrief | Vehicles: 9 people  Mark SUV: Mark, Dana, Analyssa  Jacob Truck: Jacob, Coowe  KHLT Vehicle: John, Donna, Courtney, Marie  Equipment: Jacob  Drone: Jacob  Photos: Analyssa  Objectives:   * Learn about ecological functions that support ecosystem services in headwater streams * Connect research with community engagement and decision making   Orientation: Coowe  Station 1: Dennis Whigham  Transition  Station 2: Mark Rains  Transition  Station 3: Coowe Walker  2 parts to Bridge Site  Discussion: Coowe  Debrief and thank SI for Conservation Commons/WLSs | Staff:  Coowe Walker  Jacob Argueta  Dana Nelson  Partners:  Dennis Whigham  Mark Rains  Courtney Dodge  Marie McCarty  Students:  Analyssa Hernandez  Guests:  Donna Aderhold,  John Mouw |

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| 12:45  Intro  15 min | **Coowe Walker**  Welcome to Land Trust Property, history of place with Marie. Outline goals and objectives, Describe the rotation and timing  Split group into 2 (while standing on road)  Core Concepts:   * Salmon systems are connected from headwaters to estuaries through key landscape support elements, we will be looking at peat wetlands and groundwater functions at this site. * Variety of entry points for community engagement and decision making based on stakeholder perspectives   **Team Intro** |  |
| Station 1  10 min walk, 25 min activity  (PE: 10 min uneven hummocky and wet marsh ground walk) | **Dennis Whigham**, Courtney, Marie, Dana  Plant Diversity  Climate change effects – shifting plant communities  Plant traditional Uses  Orchid, Fungi relationships  Homer Wilderness Leaders Field work with orchids - (Courtney)  Plant Identification | Materials  Orchid Specimen illustration  Laminated illustration |
| Transition Phrases | Now you are going to Mark/Coowe where you will add to the story of supporting the nearby salmon stream.  You just came from Mark/Coowe and we are going to build on that with this discussion on plant communities. | Dennis |
| Station 2  1:35  5 min walk, 30 min activity  (PE: 10 min uneven hummocky and wet marsh ground walk) | **Mark Rains,** Coowe, Analyssa  Mark-groundwater studies   * Temperature differences between stream and peatland soil water (temp loggers) * Importance of peatlands in moderating stream temps-insulating blanket, lag times, etc. * Big picture of groundwater resources- where is the water coming from, how much is there, how we’re trying to understand it and develop tools for sharing. * Examples of ways groundwater is potentially at risk, such as gravel mining (gravel in pocket)   Coowe-Conservation efforts   * peatland core (with Jacobs help) * depth of peatland, volumes of peat in the region * work with partners: state, CIRI, borough to develop peatland-salmon carbon project | Materials  Laminated illustration  Russian soil corer  Gravel  Thermometer |
| **2:00**  10-15 min | **Drive to Bridge Site** |  |

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| Station 3  2:10 pm  45 min activity  (PE: Roadside observation) | **Coowe Walker**  Coowe-overview of site-whole group   * one table looking at 1) potential for loss of connectivity- private property, parcelization (Coowe) and 2) landscape support for streams landscape elements, alders, and riparian grasses (Dennis), 3) stream inverts, talk about connecting with Tyonek students (Dana) * other table- baby salmon (Jacob), talk about Fish Need Land Too partnership, importance of showing people baby fish in the field, work with NPFA and Young Fishermen’s Association (Marie)   Activities:  Invertebrate identification  Salmon capture, identification | Materials  **Baby Fish**  Laminated Illustrations:  Prey species  Property Before/After photos  Subdivision Plats  Table  Canopy  Photarium x2  Invert D net  Hand scopes  Bucket x2  Bubbler  Mesh holding container for fish  Aquarium net x2  Waders (Jacob, Coowe, Dana, SI film person (W size 8 shoe))  Electro-fisher  Dip net  Gloves |
| 2:45 pm | **Debrief - Coowe**  Close with thanking the Smithsonian for investment and we look forward to continuing efforts in research and community engagement through the new Working Lands and Seascapes Initiative. There will be Fishermen Fieldtrips, Art and Science collaborations and Citizen Science with Alder seedbanks. |  |