Sharing Our Mission: Partnerships for Learning

The Fisheries Biotechnician Training Program
Overview

- **Background**
  - Why it seemed like a good idea

- **Program Objectives**
  - What we hoped to accomplish

- **Program Development**
  - How we figured out what to do

Identifying juvenile fish
Overview

- **Our Partners**
  - The people who helped make the program happen

- **The Program**
  - What we did and how it worked

- **Lessons Learned**

Assembling a weir at Alexie Creek
The program was conceived to address three areas of concern expressed by Federal and State fisheries managers:

- a shortage of qualified applicants to fill seasonal positions as fisheries technicians.
- an ongoing need for work-ready technicians to fill existing field positions.
- a desire to employ more local residents on fishery research and monitoring projects.
Program Objective 1

- To build local capacity to work in research field camps and gather data for fisheries research and monitoring programs.

Identifying aquatic invertebrates with Dan Bogan
Program Objective 2

- To develop a pool of trained fisheries biotechnicians to fill federal, state and locally funded fisheries research and monitoring projects.

Sampling Liz’s Slough
Program Objective 3

- To develop a model training program that can be used throughout the National Park Service in Alaska and by other Federal and State agencies to train individuals as fisheries technicians.
Program Objective 4

- To encourage local individuals to pursue additional training and education related to biological sciences and to consider professions in fisheries biology.

Stream bioassessment
We began with the end in mind:
- to design a comprehensive field-based training program for Bristol Bay residents to provide them with the skills and certifications necessary to be work-ready for federal and state positions as fisheries technicians.
Then took a market-based approach to developing the training curriculum.

- interviewed fisheries managers from the National Park Service, Fish and Wildlife Service, U.S.G.S and the Alaska Department of Fish and Game regarding what they would want their “dream technician” to know.
Based on the information provided, we determined that the program should:

- take place in a model field camp.
- cover basic salmonid biology and research methods as well as best practices for setting up and operating a field camp and working safely in bear country.
- provide specialized certification in boating and aviation safety, basic first aid, and CPR.
NPS policy and local hire objectives determined our audience:

- young adults 18 to 26 years of age
- recent high school graduates
- students currently in college
- people interested in employment opportunities in or near their home communities
The Model Field Camp

- Selecting a location
  - near Lake Clark National Park and Preserve
  - preferably an existing facility
  - close to ongoing research projects
  - access to an airport and emergency services

- Old Nondalton village site
Our first partners

- The Kijik Corporation
- The Russian Orthodox Church
- The Nondalton Tribal Council
The Curriculum

- Combination of classroom-style instruction and hands-on field experience
- 20-day residential training program with approximately 160 contact hours
- Course topics taught by Federal, State and other agency personnel
The Curriculum

- Introduction to Field Work (8 hrs.)
- Traditional Ecological Knowledge (8 hrs.)
- Camp Set-up and Leave No Trace Training (8 hrs.)
- Working Safely in Bear Country (8 hrs.)
- Aquatic Habitats (16 hrs.)
- Basic Salmonid Biology (16 hrs.)
- Collecting Biological Information (16 hrs.)
- Fish Enumeration Methods (40 hrs.)
- Safety Certifications (40 hrs.)
Our Partners

- University of Alaska Fairbanks
  Bristol Bay Campus
  - offered three credits through the UAF School of Fisheries and Ocean Sciences
  - recruited students
  - provided microscopes
  - provided insurance coverage for participants
UAF Cooperative Extension Service

- provided a logistics coordinator to provide on-site assistance and peer mentoring
- provided instructors
- transported students from home communities to Nondalton
Our Partners

- **UFW Fisheries Information Service**
  - provided funding to refine the curriculum developed during the pilot program
  - provided operational support for the 2004 training program
Lake and Peninsula School District

- provided an exhibit table at the District’s annual academic fair
- referred prospective students
- distributed information and application packets
Nondalton Tribal Council

- provided administrative support through a cooperative agreement with the National Park Service
- hired a camp cook and work crew
- administered student stipends
Our Instructors

- **UAF Cooperative Extension Service**
  - Meg Burgett
  - Bob Gorman

- **University of Alaska/Native American Fish and Wildlife Society**
  - Ray RaLonde
    - UAF Marine Advisory Program
  - Dan Bogan
    - UAA Environment and Natural Resources Institute
  - Mike Kelly
    - UAA Environment and Natural Resources Institute
Our Instructors

- **Alaska Native Science Commission**
  - Larry Merculieff

- **Bureau of Indian Affairs**
  - Dr. Glenn Chen

- **U.S.G.S.**
  - Dr. Carol Ann Woody

- **Derek Stonorov**
  - Author of *Living in Harmony With Bears*
Our Instructors

- National Park Service
  - Dr. Troy Hamon
  - Roy Wood
  - Mary McBurney
  - Ken Barnes
  - Nancy Stimson
  - Dan Young
The Program

Class of 2004
- Samantha Epchook
  Kwethluk
- Crystal Alexie
  Nondalton
- Shane Trefon
  Nondalton
- Tara Balluta
  Nondalton

Learning to conduct a stream habitat assessment with Ray RaLonde
Kristin McKinnett
Port Alsworth

Valya Yakovleva
Port Alsworth

Erin Miller
Dillingham

Students discussing Leave No Trace ethics with Nancy Stimson
The Program

- The classroom
  - 17x32 Weatherport
  - digital projector, VCR and slide projector
  - six stereoscopic dissecting microscopes
  - Honda generator

Classroom interior
The Program

The facilities

- cookhouse with bear fencing
- frame tents with cots
- two small weatherports
- traditional Dena’ina steam bath
- two outhouses
Measuring Success

- **Number of Graduates**
  - 2002: 88% graduation rate
  - 2003: 100%
  - 2004: 100%

- **Number Hired**
  - 2002: 38% hired in 2003 and 13% in 2004
  - 2003: 57% hired in 2004

Class of 2004
Measuring Success

✦ Requires Commitment
  - maintain contact with graduates to encourage interest in field positions
  - assist graduates with job placements
  - work with UAF and other institutions to establish internships to complement college coursework

Setting up students for success
Lessons Learned

- They eat massive quantities of food
  - budget at least $7 per day per person

- They don’t deal well with too much free time
  - plan optional evening activities
  - provide cards and games
  - have a supply of craft materials available

The cookhouse buffet
Lessons Learned

- Provided opportunities for the Park to develop partnerships
- Helped strengthen the Park’s relationships with local communities
- Demonstrated commitment to local hire
- Helped the Park to be a better neighbor

Graduation potluck