

## **Charles D. Hueth**

### **Work Address:**

USDI - Bureau of Reclamation  
Fisheries and Wildlife Resources Group, 86-68290  
PO Box 25007 Denver CO 80225-0007  
Email: [chueth@do.usbr.gov](mailto:chueth@do.usbr.gov)

(303) 445-2183

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## **Education**

### **B.A. Fish and Wildlife Biology, December 2003**

Montana State University Bozeman, MT

## **Work Summary**

Independently conducts studies that require the collection of data on fisheries, various aquatic fauna and their habitats including physical data associated with lake and stream habitats (e.g., fish tagging, trapping, netting, and various water quality parameters, etc.).

Compute, compile, and summarize data in spreadsheets, graphic, or narrative form.

Prepare extensive field notes and report results in detail.

Lead projects, supervise employees, and train individuals with fisheries projects.

Plan and conduct daily team activities and coordinate logistical support with staff and crew members from various state and federal agencies.

Maintain equipment for surveys which includes upkeep, modification, and construction.

Knowledgeable identifying and treating fish diseases.

Most of the work that I do is with general direction in that I am told what the overall objective is and I use my discretion and judgment to achieve the objective.

## **Work Experience**

**United States Bureau of Reclamation**  
**Fisheries Research Application Group**  
**Contractor with SAIC**  
Fisheries Technician

**May 2004-Current**

## **Work performed for the Bureau of Reclamation:**

### **May 2004 – Present**

Responsible for fish care and maintenance of Chinook Salmon, Splittail, Striped Bass, Threadfin Shad, White and Green Sturgeon, and Delta Smelt. Experienced with the procedures and equipment required for proper fish husbandry in an aquaculture-type setting (i.e., proper maintenance of biofilters, holding tanks, chillers, UV filters, and an assortment of pumps) to ensure fish survival because if any are lost it slows the experiments down and becomes expensive to replace these fish. Fish health and well being are essential to the experiments performed by researchers.

### **May 2004 – Present**

Evaluated fish entrainment studies at various intakes and irrigation canals (i.e., Fort Shaw Diversion, St. Mary Diversion, Tieton Dam, and Umatilla River Canal, etc.). The main goal when entraining fish is having the ability to identify various fish species and keeping meticulous records of the size, condition, time of day entrained, and of what particular species have been entrained. When dealing with fish I have learned that it is important to know how to handle the fish so that one does not harm or stress the fish more than it needs to be, because a fish has trouble recovering when it has been stressed to much or if harm comes from handling it. Another aspect of entrainment is the maintenance of the nets by patching or sewing the holes that sometimes occur from debris or flows of the river or stream.

### **May 2004 – Present**

Electro fishing and monitoring Bull Trout in the streams of Glacier National Park. This involves a backpack shocker several netters and a bag man who holds the fish until they are worked. Assessed miles of stream netting and identifying fish that are shocked. Once a fish is shocked they are measured, a fin clip is taken for genetic identification, and a PIT tag is inserted into each one so that if they are ever caught again we can read the unique id number and from that we can tell where it was first caught, if it has been using different streams to spawn than previous years when caught, and the condition of the fish from when initially caught to its recapture. The genetics that are taken also help to make family trees of the Bull Trout that are in the different drainages.

### **May 2004 – Present**

I am proficient with the photonic tagging system. It allows ink to be shot into various fins of a fish, so that they can be identified during and after experiments.

**May 2004 – Present**

Long distance fish hauls. Fish hauled: Chinook Salmon, Delta Smelt, Green Sturgeon, Threadfin Shad, Spittail, Striped Bass, and White Sturgeon.

**May 2005 – Present**

Monitoring of in stream flows. This involves finding reaches of stream that contain riffles, runs, and pools and setting up transects across each stream characteristic. Once that has been established in a reach of stream we then take different measurements at the transects every so many feet or inches. One measurement that is taken is the velocities of the stream at those selected intervals across a single transect using a Marsh/McMerney flow meter. Also at each selected interval across the transect the depth, substrate, cover, and/or habitat type is identified and recorded.

**September 2007 – Present**

Hydroacoustic work on Lake Powell in order to get an idea of the quantity of fish that are currently in the forebay in front of Glenn Canyon Dam.

**November 2007 – Present**

Flannel Mouth Sucker work on the Lower Colorado River. This involves using Trammel Nets that are set overnight to safely entrain fish, specifically Flannel Mouth Suckers, in order to tag them so that they can be tracked through out the river.

**November 2007**

Fabricated air lift recirculation system for holding fish.

**December 2006 – June 2007**

I was the crew leader for two SAIC employees assisting on a Steelhead predation study at the Skinner Fish Collection Facility in California. I inform the crew of what needs to be accomplished and answer any questions that they may have regarding work being done or any questions pertaining to SAIC. I am also providing housing for the SAIC employees. With this project I am responsible for fish care (i.e., cleaning, feeding, and taking water quality measurements with a YSI 85). I have also learned how to acoustically tag Steelhead and Striped Bass, this entails using anesthetic to knock the fish out, proper length and location of incision, and all the steps to ensure clean and bacteria free instruments. I have been a lead on PIT tagging because of previous experience. I was also the lead for acoustically tagging the Striped Bass and the methods used to catch them (i.e., hook and line or gill netting). Another portion of this project involves the operation of boats to monitor the fish that have been acoustically tagged and released into the forebay. This involves driving prop and jet propelled boats to specific locations through out the forebay. When mobile monitoring we use VR 100s that are connected to either an omni-directional or a directional antennae that are used to pick up (each tag has a number

that is unique for each fish) the acoustically tagged fish that have been released into the forebay. Another aspect of this project that I am involved in is the downloading of VR2s that are strategically located throughout the forebay. The VR2s are fixed stations that detect the pings that the acoustic tags produce. Information from these stations allows us to follow the movement of acoustic tagged fish within and outside the forebay. I have also been working at night doing fish releases. This involves making sure that everything is set up correctly and ensuring the safety of the crew because we are working at night around swift moving water. I am also responsible for the upkeep of the equipment used in this project (i.e., boats, vehicles, fish release equipment, fish holding tanks, and the building they are located in).

#### **October 2006 – November 2006**

Designed and fabricated a new fish culture facility to increase the existing capacity for which fish can be reared and held for use in Reclamation experiments.

#### **September 2006**

Designed, fabricated and tested a prepositioned shocker. This is potentially a new and more effective technique of fish sampling.

#### **August 2006**

Assisted in the design, fabrication, and lab testing of a floating platform for an aeration system to be used for endangered fish rearing.

#### **May 2004 - August 2006**

Assisted a PhD candidate with research on fish physiology (specifically stress physiology of Chinook salmon). My responsibilities included performing experiments, help in developing research protocols, preparing equipment, and taking blood samples from the fish.

#### **June 2006**

Used my experience in elastomer and PIT tagging to tag Coho Salmon on the Trinity River in Northern California in order to determine if rehabilitated sites along the river provide adequate habitat for the juvenile fish. The elastomer tag was injected in one of different colors according to where the fish were to be released in the river (four different sites where fish were released). The elastomer tag was used to differentiate a fish, if recaptured, from one release site to the next and it was also valuable to identify fish when snorkel surveys were being conducted (wild from hatchery fish). PIT tags were used to identify each individual fish that was recaptured by giving a number that went with an initial weight and length and that helped to see the growth of the individual. With the tagged fish in the river we could see what rehabilitated sites were preferred more by the juvenile fish.

**Professional Licenses and Certifications:**

Motorboat Operator (D.O.I.), CPR (Red Cross), A.T.V. Operator (D.O.I.) Confined Space Training (D.O.I.)

**Computer Proficiency:**

Microsoft Excel, Microsoft Powerpoint, Microsoft Word, Vaki Software

**References:**

Deb Callahan  
SAIC Supervisor  
Denver Federal Center  
6<sup>th</sup> and Kipling 86-68290  
Denver, CO 80225  
(303) 445-3645  
Email: [dcallaha@do.usbr.gov](mailto:dcallaha@do.usbr.gov)

Vicky Johanson  
SAIC Natural Resource Specialist  
Denver Federal Center  
6<sup>th</sup> and Kipling 86-68290  
Denver, CO 80225  
(303) 445-2292  
Email: [vjohanso@do.usbr.gov](mailto:vjohanso@do.usbr.gov)

Donald Portz  
USBR Fisheries Biologist  
Denver Federal Center  
6<sup>th</sup> and Kipling 86-68290  
Denver, CO 80225  
(303) 445-2220  
Email: [dportz@do.usbr.gov](mailto:dportz@do.usbr.gov)

Steve Hiebert  
USBR Fisheries Biologist  
Denver Federal Center  
6<sup>th</sup> and Kipling 86-68290  
Denver, CO 80225  
(303) 445-2206  
Email: [shiebert@do.usbr.gov](mailto:shiebert@do.usbr.gov)

