Fish Sampling Techniques Class Agenda
San Carlos, AZ

Monday, July 23 PM 12:00 noon

- Blessing
- Lunch Soup and Salad Bar (sponsored by Bass Pro Shops)

- Welcome
  - Opening Remarks from San Carlos Tribal Leadership, Southwest Tribal Fisheries Commission, Native American Fish & Wildlife Society, U.S. Fish and Wildlife Service, Bass Pro Shops
  - Course Description and Agenda (with discussion of field trip logistics)
  - Participant Introductions (Name, location/affiliation, fish projects, reason for attending course)
- Overview of fish sampling techniques (passive and active)
- Net Dominated Techniques
  - Active vs passive netting techniques
    - Active Nets
      - Trawls, drifted nets and seines
    - Passive Nets
      - Gill, trammel, trap and hoop nets
  - Habitat and species considerations
    - Lotic, Lentic, Substrate, Structure
    - Pelagic, Benthic, Diurnal, Nocturnal, Crepuscular
  - Environmental parameters for sampling consideration (flow, turbidity, temperature, debris/vegetation)
  - Safety
  - Development of data forms
- Electrofishing Techniques
  - Community of practice site: electrofishing.net
  - Gear types, operation, and water body (habitat) and species applications
  - Live operation of backpack (and maybe boat control box)
  - Waveforms

- Environmental parameters for sampling consideration (water conductivity, turbidity, temperature, flow, vegetation, time of day)
    - Water conductivity exercise
- Volt and amp settings (Electrofishing App, Excel file)
- Development of data forms
- Safety

Tuesday, July 24 AM

Divide Class in Two Groups (Box Lunches Provided by NAFWS-Southwest Region)

- Leave at 7:00 AM for field trip to Blue River (Group 1) and Talkalai Lake (Group 2)
    - Backpack shocking and seining in Blue River
        - Determination of sample site length, general assessment of habitat types in target reach, discussion of sampling approaches (single backpacks, backpacks in tandem, other electrofishing gear options, appropriateness of seining)
        - Take water conductivity, use Electrofishing App to determine settings, trial settings and learn sampling techniques
        - Use a combination of seine and backpack, and seine alone
        - CPUE, 3-pass depletion
    - Talkalai Lake
        - Assess lake for the appropriate habitat (bank, open water, bay, windblown shore, benthos) both by map and reading the water and electronics
        - Take turbidity (meter and Secchi Disk), temperature, and conductivity measurements
        - Safe and effective net deployment and proper trap net placement (2 net/trap boats) and fish extraction procedures
            - 1-hour soak time
        - Boat shocking (2 electrofishing boats)
        - Field data collection (fishing effort, length and weight tagging and marking)

Tuesday, July 24 PM

- Blue River (Group 1) remains in field; some data work in class upon return
- Talkalai (Group 2) returns to class
    - Debrief of trip
    - Introduction to twines, lines, knots and netting
    - Maintenance, repair, building nets and traps
    - Data analysis (nets and boat electrofishing)

Wednesday, July 25 AM (Box Lunches Provided by NAFWS-Southwest Region)

- Leave at 7 AM for field trip to Talkalai Lake (Group 1) and Blue River (Group 2)
    - Backpack shocking and seining in Blue River
        - Determination of sample site length, general assessment of habitat types in target reach, discussion of sampling approaches (single backpacks, backpacks in tandem, other electrofishing gear options, seining applications)
        - Take water conductivity, use Electrofishing App to determine settings, trial settings and learn sampling techniques
        - Use a combination of seine and backpack, and seine alone
        - CPUE, 3-pass depletion
    - Talkalai Lake
        - Take turbidity (meter and Secchi Disk), temperature, and conductivity measurements
        - Net and trap setting (2 net and trap boats)
            - 1-hour soak time
        - Boat shocking (2 electrofishing boats)
        - Measure lengths and weigh catch; tagging?

Wednesday, July 25 PM

- Blue River (Group 2) remains in field; some data work in class upon return
- Talkalai Lake (Group 1) returns to class
    - Debrief of trip
    - Introduction to twines, lines, knots and netting
    - Maintenance, repair, building nets and traps
    - Data analysis (nets and boat electrofishing)

Thursday, July 26 AM

- Criteria for buying nets and traps
    - Materials
    - Dimensions
    - Durability
- Criteria for buying electrofishing gear
- Optional fieldwork (if required due to reasons such as weather)
- Groups report out on reservoir and stream work (provide time for groups to derive a brief study plan for a reservoir or stream
- Summary, discussion
- LUNCH: PIZZA PARTY (Sponsored by Bass Pro Shops)
- Course Evaluation