

## **Guidelines to Following the Standard Operating Procedures (SOP) for Biomonitoring Fish Communities**

Following the SOP in its entirety is critical to obtain a valid fish IBI score. The items below represent areas where mistakes are often made by assessors:

1. **Level of effort** expended should conform to SOP recommendations regarding equipment and personnel.
2. **Stream reach length** to be sampled should be 35 times the mean stream width (MSW).
3. Guidance in the SOP for **time of year for sampling** should be adhered to carefully; best professional judgement also comes into play after significant rainfall events.
4. A representative of each encountered species should be **photo-documented** with quality photographs (use of fish viewer or photo tank is highly recommended) or **retained as a voucher specimen**. Please refer to the *General Collection Permit Conditions for State Protected Fishes* included with your scientific collection permit (<https://gadnrle.org/special-permits>) before vouchering any state protected fish species.
5. The ability to correctly identify fish to species is critical; when in doubt, identifications should be verified by a regional ichthyologist. The person identifying the fish specimen should be listed in any report or publication resulting from the assessment.
6. Per the SOP, fish communities in streams with watershed areas less than one square mile cannot be effectively assessed with this procedure. Benthic macroinvertebrate assessments can sometimes serve as an alternate biological assessment tool. Available at: <https://epd.georgia.gov/macrobenthic-bioassessment-standard-operating-procedures-sop-and-metric-spreadsheets>
7. A permit from the U.S. Fish and Wildlife Service is required to sample waters with known populations of fishes listed under the U.S. Endangered Species Act.

Failure to collect fish data according to the SOP will render invalid IBI results. After reading the SOP carefully, please call GAWRD Stream Survey Team at 706-557-3305 if uncertainty remains regarding any portion of the SOP. GADNR/SPU January 2020.