

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

Following the SOP in its entirety is critical in order 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 with regard to 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 guidance from the WRD's Nongame Conservation Section 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 (contact GAEPD at 404-675-1646).
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**.

Methodology for IBI fish sampling in Georgia has been carefully laid out in GAWRD's "Part 1: Standard Operating Procedures for Conducting Biomonitoring on Fish Communities in Wadeable Streams in Georgia". Ecoregion-specific directions for scoring are found in Part 2 (Piedmont), Part 3 (Southeastern Plains), Part 4 (Ridge and Valley), and Part 5 (Blue Ridge).

Available at: <http://www.georgiawildlife.com/node/913>

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 770-761-3011 if uncertainty remains regarding any portion of the SOP.