SFS Taxonomic Certification Program

**Program Background and Justification**

The accurate and precise identification and classification of organisms provides the foundation for many ecological investigations of streams, rivers, and lakes, including biological assessment and monitoring programs aimed at evaluating the quality of habitat and water.

High quality taxonomy is crucial to credible ecological studies and reliable bioassessment programs. However, there is concern that:

1. there are many errors and inaccuracies associated with the taxonomy of some on-going programs;
2. there is no recognized protocol in North America for evaluating the taxonomic ability of people identifying invertebrates; and
3. academic support for faculty positions and student training related to non-molecular, organismal taxonomy is declining.

These concerns have been expressed by a number of state and federal agencies (e.g., Kentucky, North Carolina; Environment Canada, US Environmental Protection Agency, US Geological Survey) involved in environmental regulation and monitoring as well as by individuals involved in both basic and applied scientific research.

Consequently, the Society for Freshwater Science (SFS, formerly North American Benthological Society or NABS) decided to implement a certification program for those involved with macroinvertebrate identification in North America. This program will certify that trained and skilled persons are providing aquatic invertebrate identifications. In addition, it is anticipated that this program will help promote undergraduate and graduate training of new taxonomic experts, the training of taxonomic technicians through workshops, the development of new manuals for identifying aquatic invertebrates, and taxonomic excellence in other disciplines and other parts of the world. The certification program will test a candidate's knowledge and skills in aquatic invertebrate taxonomy and will provide the successful applicant with a **certificate of proficiency that lasts five years**.

**WVDEP Headquarters Testing Center**

The WVDEP headquarters in Kanawha City is a certified testing center for all taxonomic identification tests offered by the SFS Taxonomic Certification Program (TCP). Individuals may be certified at either the Family or Genus-level.

Family-level tests are image-based and are taken online at WVDEP. The only Family level test offered at this time is for Aquatic Insects. A free Family level [self-evaluation](http://www.sfstcp.com/NABSTCPHome/TestDescriptions/SelfEvaluation/tabid/165/Default.aspx) is available (Note: in order to take the free self-evaluation test you must [REGISTER](http://www.sfstcp.com/TCPHome/tabid/80/ctl/Register/Default.aspx?returnurl=http%3a%2f%2fwww.sfstcp.com%2fTCPHome%2ftabid%2f80%2fDefault.aspx) with the Taxonomic Certification Program. The username and password you create will be used later when you login for actual online tests).

Genus level testing is conducted in one of two ways:

1. specimen-based using actual whole or slide mounted specimens provided by SFS or
2. online image-based (similar to the Family level test for Aquatic Insects).

Note: SFS is gradually phasing out the specimen based tests in favor of the online image-based tests.

In addition, Genus level testing is broken out into multiple taxonomic groups and by US geographic region (i.e., Eastern or occurring east of the Rocky Mountains vs. Western or occurring in and west of the Rocky Mountains). The five Taxonomic Groups (eastern and western) are as follows:

1. Ephemeroptera, Plecoptera, and Trichoptera (EPT) genera (nymphs and larvae only) ***(Image-Based test)***,
2. Chironomidae genera (larvae only) ***(Specimen-Based test)***,
3. Genera of Crustacea and arthropods (including insects) other than EPT and Chironomidae (immatures and adults as appropriate) ***(Specimen-Based test)***,
4. Oligochaeta genera ***(Specimen-Based test)***,
5. Mollusca genera (field identifications are not included) ***(Specimen-Based test)***.

Click [TCP Test Fee](http://www.sfstcp.com/TCPHome/TestDescriptions/TestFees/tabid/122/Default.aspx)s for current test pricing.

Exams at WVDEP headquarters are scheduled on an as-needed basis. If demand becomes high, WVDEP may switch to limited-seat scheduled exam system. If you are interested in taking any of the SFS Taxonomic Certification Program exams at the WVDEP Headquarters in Kanawha City, please contact one of the following test proctors/examination supervisors:

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| Michael Whitman | [Michael.J.Whitman@wv.gov](mailto:Michael.J.Whitman@wv.gov) | (304) 926-0499 ext. 1088 |
| Jeff Bailey | [Jeffrey.E.Bailey@wv.gov](mailto:Jeffrey.E.Bailey@wv.gov) | (304) 926-0499 ext. 1094 |

Due to the need to schedule exam space and allow for specimen shipping, exams cannot be scheduled any sooner than one month from the time of contact with the test proctors/examination supervisors.

More details about the SFS Taxonomic Certification Program and can be found at [www.sfstcp.com](http://www.sfstcp.com). Additional regional testing centers are also listed [HERE](http://www.sfstcp.com/TCPHome/GenusLevelTestCentresSupervisors/SpecimenstoGenusTestCentres/tabid/143/Default.aspx).