

RE-CERTIFICATION GUIDELINES

Genus-level taxonomic proficiency

The successful completion of the taxonomic certification process —developed and administered by the Taxonomic Certification Program (TCP) of the Society For Freshwater Science (SFS) [formerly the North American Benthological Society (NABS, 1975-2011)]—results in a certificate of proficiency in performing taxonomic identifications of freshwater benthic macroinvertebrates. This process includes passing a practical (specimen/image-based) exam with a score of 95% for certification for a particular region and taxonomic group, and submittal of a certification fee. As part of this program, the certification credentials remain valid for a period of 5 years. Additional details of the program can be found at the program’s SFS website: <https://stroudcenter.org/sfstcp/>. The Taxonomic Certification Committee (TCC), which oversees the TCP, recognizes that a practicing taxonomist, by virtue of his/her regular professional activities and duties, maintains the skill and understanding to perform at a high level of competency. The TCC also recognizes that, when taxonomy-related activity has been drastically reduced or eliminated from the regular duties of a certified taxonomist, those skills can become less effective, compromising efficiency and accuracy. In response to the reality that many taxonomists who were successfully certified during the first few years of this program would be requesting recertification, the SFS-TCC has established two options for consideration: specimen/image-based recertification, which is similar to that taken for initial program certification, and the petition-based recertification, described below. Note that individuals opting for the petition process must complete submittal within two years of the expiration of the applicant’s certification.

The applicant shall make the initial choice (of the two options, above) depending on her/his circumstances. Regardless of choice, a decision by the TCC to deny recertification of an applicant (whether due to a failed specimen/image-based test or unacceptable written petition) cannot be challenged. The only recourse in the event of such a decision by the TCC is for the candidate to take and pass a specimen/image-based test again, and at the going cost for that test.

Costs for Petition Based Recertification

The recertification fee for a single taxonomic group (e.g., EPT or Chironomidae) shall be \$275 for an SFS member and \$375 for a non-member. If an applicant wishes to submit a recertification petition for two or more groups, the fee structure shall be \$275 for the first group and \$225 each for the second/subsequent group(s) for an SFS member. A non-member will pay \$375 for the first group and \$375 each for the second/subsequent group(s).

Please make all checks payable to “Stroud Water Research Center” and send to Michael Broomall, SFS Taxonomic Certification Program, Stroud Water Research Center 970 Spencer Rd, Avondale, PA, 19311. Payments can be made online as well: <https://stroudcenter.org/product/taxonomic-certification-exams/>

Procedures for Recertification by Petition

If the recertification applicant chooses the written petition option, she/he must provide in electronic format the appropriate information pertinent to the seven criteria in the petition (below), summarizing the applicant's professional, academic, and/or research activities during the initial 5-year certification period (and beyond, if that certification had expired). All applications and materials associated with each application should be submitted electronically to tcp@stroudcenter.org. Responses should include appropriate detail. All information provided by the applicant, both within and attached to this petition, shall remain confidential. During the evaluation process, the applicant's petition package will be shared only with the TCP coordinator, his/her administrative assistant, and the sub-committee of TCC members directly involved in the review and decision process. If the applicant has any concern regarding the sensitive nature of any part of this petition, she/he is encouraged to state such, in writing, and include the request and reasons in a cover letter accompanying the petition package at the time of its submission to the TCC Coordinator. One or more members of the TCC subcommittee involved in the review of an applicant's petition may contact the applicant or their references to verify information provided in the petition. The sub-committee reserves the right, after cursory review, to return the application immediately to the applicant, with explanation of deficiencies, to provide the applicant opportunity for a more complete and/or clarified presentation of her/his credentials. In the case of resubmission of a petition-based recertification, the candidate (member or non-member) can complete or prepare a re-submission at a one-time reduced cost of \$100 (SFS MEMBER), \$150 (Non-member) per taxonomic group (i.e., no discount for multiple groups). The TCC sub-committee will consist of three members and a simple majority vote is required for a final decision on any given application. The decision of TCC subcommittee members reviewing an applicant's petition will make recommendations to the TCP coordinator, who will then convey (through his/her administrative assistant) the decision to the applicant. The TCP coordinator (via his/her administrative assistant) shall remain the point of contact regarding all certification and recertification matters, not individual TCC members. Please do not communicate directly to TCC members regarding this process. The review process will be completed and a decision made within **60 days** of the submission of a complete petition.

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Guidelines for preparing petition

- A. Instructions should be followed explicitly, including limiting information to that requested for each petition item. Obvious exceptions are Items 1 and 7; for these, you are allowed to provide any information you think appropriate and that would strengthen your petition.
- B. Please note that lengthy and detailed cover letters will not influence committee deliberations; thus, the review committee will make no effort to extract decisive information from a cover letter or email as relevant to an individual item of the application. However, the cover letter or email should include any necessary statements of confidentiality.
- C. Information intended to address an individual petition item should be immediately preceded by the boldfaced item name and number as provided below.
- D. Other than for items 1 and 7, text or other information submitted beyond what is specifically requested may result in your application being returned without further evaluation. *Example:* Item 6 requests that three references be provided with complete contact information (e. g., address, phone, email). If >3 references are submitted, your application will be returned without further evaluation.
- E. Item 5 should be reproduced (copied and pasted) in your petition submittal with x's placed in the appropriate locations; narrative explanations for individual x's are not necessary and may result in your application being returned without further evaluation.
- F. Note that a successful application is NOT contingent upon addressing all of the criteria. Applicants should know that "not applicable" (NA) is an acceptable entry for some of the criteria below; items left blank (without an "NA" or any text) will result in the application being returned without further evaluation. If some information, such as client names or project locations, cannot be provided due to confidentiality needs or security reasons, please state '**recused because of specific confidentiality requirements**' in pertinent criterion (criteria) and clearly indicate such in the cover letter accompanying your recertification application, and/or email to TCC co-chairs. The TCC evaluation of your petition will in no way be compromised due to the requirement of confidentiality by contractors.
- G. Use additional pages, if necessary, to provide the information requested in the seven criteria, below.

1. Narrative Justification Describe your activities within the last 5 years that you consider relevant to maintaining proficiency of taxonomic identification skills. Consideration of your petition by the TCC will be more effective if you quantify your narrative with substantive and clearly-written responses to the following:

- The approximate number of specimens you have identified and the approximate proportion of them represented by the taxonomic group(s) that you are petitioning for recertification;
- The number of projects for which you served as either primary or QC taxonomist and some "brief indication" (as details can be provided below in addition to this narrative) of the general nature and location of the projects (e.g., small streams, large rivers, eastern USA, western USA) and your specific role in those projects (direct identification of specimens, QA/QC services for others in your group);
- If any of the taxonomic identifications that you made (or approved) underwent a taxonomic check (QA/QC) as part of one or more of your projects, you need to report a summary of the results of those checks; OR, if the identification of any specimens have been verified by other taxonomists, a summary of those verifications should be provided;
- The number of peer-reviewed publications you authored/co-authored focused on or including the taxonomic group

for which you seek recertification (note that if your position does not entail such publications then just say “not applicable to my position” at work);

Narrative Justification (cont.)

- The number of technical reports in which your primary taxonomic identifications were used, evaluated, or summarize primary taxonomic data (whether or not you were an author or co-author of the report) as well as some “brief indication” of the extent and nature of those reports if different from projects described above;
- Other experience pertinent to your continuing work with the group of organisms for which you seek taxonomic recertification – e.g., organization/teaching of taxonomic workshops; curation/management of a collection of this group housed in an institution, museum, agency, consulting firm, and/or other educational or professional entity; teaching in undergraduate/graduate educational institutions; author/co-author of poster and platform presentations at professional meetings; responsibilities as a lab supervisor or manager that specifically includes formal instruction of coworkers in the taxonomy/systematics of your group; responsibility as principal (co-) investigator of research projects focusing on taxonomic group for which you seek recertification (including source[s] of funding).

2. Peer-reviewed publications on taxonomy or systematics

List full and complete citations for peer-reviewed taxonomic/systematic publications for which you are an author or co-author (as well as for those publications in which you are acknowledged as having provided taxonomic identifications or verifications) relevant to the taxa for which you seek recertification. List only those that have been published (or are actually in review) in the last 5 years.

3. Technical reports/publications on biological assessments

List complete citations for technical reports (whether or not you were an author or co-author) for which you produced, through laboratory taxonomic identifications, the taxonomic data used for analyses. List only reports that have been finalized during the 5-year period since the date of initial certification (or most recent recertification), and be sure to include their availability (website URL; name and contact info for primary/or other author(s); postal or email address and name of contact person should a copy be requested).

4. Project-based taxonomic identifications

List projects in the past 5 years for which you served as the primary or QC taxonomist. Provide the following information for each project: **a)** title; **b)** name(s) of principal investigator (or project manager, technical lead, or client), including affiliation, telephone number, and/or email address for confirmation; **c)** timing of project (approximate beginning and ending dates/years); **d)** number of locations (study sites or number of streams or lakes involved) associated with each project for which you identified samples or specimens; **e)** geographic coverage; **f)** taxonomic level of effort (genus, species, lowest practical, other); and **g)** address the following question for each of the above-listed projects: ‘If you were the primary taxonomist, what quality control procedures were implemented and maintained during the course of the project’? Note: The TCC understands that some projects are of a confidential nature; thus, it is acceptable to indicate them as such, but the applicant is encouraged to provide as much pertinent information as is allowable.

5. Project types

When you perform taxonomic identifications, for what kinds of projects are the results used as input? For your petition, please copy and paste the below list and mark all that apply with an “X”.

Biological assessments _____
Biological diversity surveys _____
Permit application and/or compliance _____
Impact assessments _____
Discovery of new species _____
Phylogenetic analyses _____
Natural history studies _____
Environmental impact statements _____
Threatened and endangered species surveys (federal, state) _____
Formal/informal teaching activities (e.g., public education, outreach) _____
Personal/collaborative research leading to peer-reviewed publications _____
General/personal interest _____
Quality assurance, quality control _____
Systematic studies (revisions, descriptions) _____

6. References

Provide the names of three personal references (e.g., professional, research, academic, client company project managers – all from outside of the applicant's institution or company of employment), who have a working knowledge of the applicant's taxonomic activities, specifically focusing on the applicant's geographic and taxonomic breadth in the group(s) named in this petition for recertification.

References should include professional colleagues who can objectively substantiate the applicant's precision and accuracy, i.e., those with direct knowledge of QA/QC findings of your work, and/or experience with and oversight of the identifications you have provided.

Additional references may include editors of peer-reviewed journals who have solicited and received one or more reviews from the applicant that focused on taxonomy and/or systematics of genera and species in the group(s) for which she/he is requesting recertification.

Please list again even if there is overlap between this list and those names mentioned above in **4b**.

You should inform the references listed that their names and contact information have been provided to the TCC. For each reference, please include their name, title, affiliation, postal address, telephone, and email address.

7. Curriculum vitae

Please include your updated curriculum vitae with this petition. The inclusion of PDFs of your published papers, if any, would be welcomed but is optional (links to PDFs of publications you have authored/coauthored is also acceptable). Please include any recent “Continuing education, training and taxonomic workshops”.