

To: Laboratories participating in ProfTest Syke proficiency tests

## Proficiency test ZOO 12/2024 – Macroinvertebrate taxonomic

ProfTest Syke will organize a macroinvertebrate taxonomic proficiency test (ZOO 12/2024) in November 2024 – January 2025. The test consists of three parts of which participants may select the test parts they want to participate. The test material will represent macroinvertebrate taxa that typically occur in freshwaters of Fennoscandia and the northern part of the Baltic Sea. The proficiency test is targeted at consultants and environmental authorities who analyse macroinvertebrate samples from inland waters or the Baltic Sea as well as macroinvertebrate analysts working in research institutes and universities. 12-30 participants are expected to take part in the test. The organizing of this interlaboratory comparison is not included in the accreditation scope of ProfTest Syke.

### Sample matrices

The test will be divided into the following parts:

- Lake profundal taxa identified from photographs.
- Lake littoral and running water taxa identified from a preserved sample.
- Northern Baltic Sea brackish water taxa identified from photographs.

### Timetable

|                          |  |
|--------------------------|--|
| Registration             | <b>5 September – 18 October 2024</b>                     |
| Sample dispatch date     | 18 November 2024 (see Chapter 4 <i>Sample delivery</i> ) |
| Reporting of the results | <b>19 November 2024 – 10 December 2024</b>               |

### Participation fee

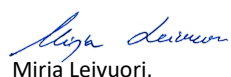
The participation fee is **900 €** (+ VAT) including all measurements and samples.  
See detailed information in Chapter 9 *Participation fee*.



Kimmo Tolonen  
person in charge (freshwaters)



Henrik Nygård  
person in charge (Baltic Sea)



Mirja Leivuori,  
Group manager (interlaboratory comparisons)

ProfTest Syke is proficiency testing provider PT01  
(EN ISO/IEC 17043:2010) accredited by FINAS  
(Finnish Accreditation Service, [finas.fi/sites/en](https://finas.fi/sites/en)).



## Organizing the proficiency test

### 1 Organizer

ProfTest Syke, Finnish Environment Institute (Syke)  
 Address: Mustialankatu 3, FI-00790 Helsinki, Finland  
 Email: [profTest@syke.fi](mailto:profTest@syke.fi)

### Contact

|   |   |
|---|---|
| Persons in charge and technical implementation: | Kimmo Tolonen* (freshwater) tel. +358 295 251 037   |
| ProfTest Syke coordinator:                      | Henrik Nygård (Baltic Sea) tel. +358 295 251 469  |
| Email:  | Mirja Leivuori, tel. +358 295 251 366   |
|   | <a href="mailto:firstname.lastname@syke.fi">firstname.lastname@syke.fi</a> , * <a href="mailto:kimmo.t.tolonen@syke.fi">kimmo.t.tolonen@syke.fi</a> |

### Analytical experts and technical implementation

Tarja Katajisto (Baltic Sea), tel. +358 295 251 266  
 Kimmo Tolonen (freshwaters), tel. +358 295 251 037

**Expert laboratory** Finnish Environment Institute (Syke), Helsinki (T003, [finas.fi/sites/en](https://finas.fi/sites/en))

### 2 Samples and taxonomic resolution required

Participants can participate in the following species identification sections:

1. Lake profundal taxa with ca. 15 individuals to be identified from photographs.
2. Lake littoral and running water taxa with ca. 30 individuals to be identified from a preserved sample.
3. Northern Baltic Sea brackish water taxa with ca. 30 individuals to be identified from photographs.

The taxonomic resolution required is:

- The taxonomic resolution required for freshwater macroinvertebrate identification is based on the requirements set for Finnish national freshwater macroinvertebrate monitoring (Järvinen et al. 2024, List 1 and 2).
- Northern Baltic Sea macroinvertebrate identification is based on the requirements of the BQI and BBI indexes, which are used in Sweden and Finland, respectively (Perus et al. 2007, Vuori et al. 2009, Attachment 3.3.1, Leonardsson et al., 2009).

### 3 Registration

The registration for this proficiency test opens 5 September 2024 and remains open until **18 October 2024**.

Registration will be done via the electronic form: <https://link.webropol-surveys.com/S/519EDBFD60F4B3F4>.  
 If there are problems, please contact [profTest@syke.fi](mailto:profTest@syke.fi).

## 4 Sample delivery

The digital material for the components to be identified based on photographs will be available on the internet between 18 November 2024 – 10 December 2024. A link to this material will be sent to participants by latest on 18 November 2024. The samples for lake littoral and running water taxa identification will be posted to participants on 18 November 2024. Excel spreadsheets for reporting the test results will be sent to participants on 18 November 2024.

If the sample package does not arrive at the latest on 22 November 2024, or there are missing and/or broken sample containers, please contact Kimmo Tolonen. More contact details in Chapter 1 Organizer.

## 5 Sample storage and analysis

Samples should be analyzed **by the registered participant within the laboratory where they will be delivered**, and analyses should be conducted according to the participant's normal procedures.

Guidance for the analysis of test samples in the different test sections will be given in the Excel spreadsheets that will be send by e-mail to participants. Timetable for sample analysis is on the first page of this letter.

## 6 Reporting the results

The participants should send their results (Excel file per section) to Kimmo Tolonen (lake and running water taxa) and Henrik Nygård (Baltic Sea taxa) at the latest on 10 **December 2024** (contact details in Chapter 1 Organizer).

ProfTest Syke delivers the preliminary report to the participants latest in the week 3 (13 – 18 January 2025). The final report will be published at the latest in May 2025 and it is available via ProfTest Syke website ([syke.fi/proftest/en](https://syke.fi/proftest/en)). The availability of the report will be informed to the participants.

## 7 Evaluation of the results

The test results are reported as the proportion of correctly identified individuals. The results can be considered good if  $\geq 90\%$  of the taxa are correctly identified. Personal certificates of participation and the result are delivered after publishing the final report.

## 8 Confidentiality

The results of participants are treated anonymously.

## 9 Participation fee

The participation fee for all three test sections per participant is **900 € (+ VAT)**. The fee for **one or two sections** is 350 € /section/participant (+VAT). **Students** can participate at the cost of **200 €** /section/participant (+ VAT). A copy of student card shall in this case be sent to the organizer.

The invoice will be sent after the delivery of the preliminary result report.

Note! In Finland VAT is 25.5 %. Further, if the invoicing address or any other additional information has to be corrected after the invoicing, the extra handling cost will be charged. The participant is also responsible for possible custom clearance or customs fee of the sample.

## 10 References

Leonardsson, K., Blomqvist, M. & Rosenberg, R. 2009. Theoretical and practical aspects on benthic quality assessment according to the EU-Water Framework Directive - examples from Swedish waters. *Marine Pollution Bulletin*, 58, 1286–1296

Järvinen, M., Aroviita, J., Karjalainen SM., Karttunen, K., Kuoppala, M., Mykrä, H. ja Mitikka, S., 2024. Jokien ja järvien biologinen seuranta – näytteenotosta tiedon tallentamiseen. [https://vesi.fi/aineistopankki/wp-content/uploads/2024/06/XN3103 Sisavesien biologinen seuranta ohjeistus tarkistettu 18-06-2024.pdf](https://vesi.fi/aineistopankki/wp-content/uploads/2024/06/XN3103_Sisavesien_biologinen_seuranta_ohjeistus_tarkistettu_18-06-2024.pdf) (in Finnish).

Perus J., Bonsdorff E., Bäck S., Lax H.-G., Villnäs A. and Westberg V. (2007). Zoobenthos as indicators of ecological status in coastal brackish waters: a comparative study from the Baltic Sea. *Ambio* 36: 250–256.

Vuori K.-M., Mitikka S, Vuoristo H (2009) Pintavesien ekologisen tilan luokittelu. Ympäristöhallinnon ohjeita 3:2009. <http://hdl.handle.net/10138/41785>.