

4th Nordic-Baltic diatom intercalibration/harmonization exercise 2013

Dear Nordic-Baltic diatom colleagues!

(please spread the letter to anybody in our region who might be interested)

Please feel invited to the fourth Nordic-Baltic diatom intercalibration/harmonization exercise. For those unfamiliar with the first exercises in 2007, 2009 and 2011, please check the webpage <http://www.norbaf.net> for information on the results.

The intercalibration is organized by NorBAF (Nordic Network - Benthic Algae in Freshwater, www.norbaf.net) and the Department of Aquatic Sciences and Assessment, SLU (Swedish University of Agricultural Sciences, <http://www.slu.se/vatten-miljo>).

It is important to harmonize the diatom identification of the Nordic-Baltic diatomists in order to improve comparisons between different diatom studies, especially as diatom monitoring has increased because of the Water Framework Directive. Based on the experience from the activities in 2007, 2009 and 2011, the NorBAF participants agreed to continue with diatom intercalibrations every second year. SWEDAC (Swedish Board for Accreditation and Conformity Assessment) is informed about our activities and the participation of Swedish laboratories and consultants.

The diatom intercalibration 2013 will be performed as follows:

1. All participants will receive 2 untreated diatom samples and will have to prepare their slides themselves.
2. Preparation, identification and enumeration of the diatoms will follow the Swedish Standard method using diatoms for environmental monitoring ('Påväxt i rinnande vatten – kiselalgsanalys'. In: Handledning för miljöövervakning: Sötvatten, Version 3:1 : 2009. Short English description in 'Environmental Quality Criteria – Lakes and Watercourses. Swedish EPA, report no. 5050). Download method at <https://www.havochvatten.se/download/18.64f5b3211343cffddb280004863/P%3%a5v%3%a4xt+i+rinnande+vatten-+kiselalgsanalys.pdf>.
3. See also 'Diatom preparation according to Amelie Jarlman, January 2007' at <http://www.slu.se/sv/fakulteter/nl/om-fakulteten/institutioner/institutionen-for-vatten-och-miljo/laboratorier/biologiska-laboratoriet/biologiska-analysmetoder/pavaxtalger-som-miljoindikator/kiselalgspreparering/>
4. And NORBAF homepage www.norbaf.net
5. The Swedish Standard taxa list and the standard format **must** be used when reporting results (deadline 15.10.2013). To be found at <http://www.slu.se/sv/fakulteter/nl-fakulteten/om-fakulteten/institutioner/institutionen-for-vatten-och-miljo/datavardskap/dataleveranser/>
Note that the taxa list also includes rare taxa. Please make sure that you check all your identified taxa carefully, especially when you find it noted as rare in the literature. The list includes a column where you can note the number of valves that you decide to add as "cf.". If you find a taxon not included in the list, please check FIRST in the list of synonyms. If not there, add it in the end of your taxalist with name and author, note the sizes and make a good picture and send this together with your results to Maria Kahlert. Please note that it is not required to identify all varieties/species of the *Achnantheidium minutissimum* group with the exception of *Achnantheidium gracillimum* Lange-Bertalot and *Achnantheidium caledonicum* Lange-Bertalot. However, it is necessary to measure the width of 10-20

valves, calculate the mean width and define by this the size group of *Achnanthydium minutissimum*.

6. The counts will be evaluated according to Kelly (2001). The results of each participant will be compared with the results of two auditors, familiar with the Swedish Standard method and the Nordic flora (Amelie Jarlman, Jarlman Konsult AB, and Bart Van de Vijver, National Botanic Garden of Belgium).
7. Please note also in the special column how many valves are deformed. This exercise will not be used to compare participants, but only to see if the new Swedish method to count deformed valves needs correction. Please separate deformations into the categories 'slightly deformed outline', 'heavily deformed outline', 'slightly deformed structure' and 'heavily deformed structure' for each taxon you find. For examples, see report: http://www.lansstyrelsen.se/blekinge/SiteCollectionDocuments/Sv/publikationer/rapporter/2012/Rapport%202012_12.pdf
8. All results will be published on NorBAFs homepage. The participants can choose if they wish to be published with name or anonymously on the homepage. General information on the dominant taxa and most common errors will be published, with photos, on the NorBAF homepage.
9. The results will be discussed during a workshop held at Norr Malma field station, Lake Erken, 18.-20. November 2013 (similar to 2006, 2007 and 2011). All participants are invited to participate and discuss the results, and also discuss solutions to problematic taxa groups. We will also discuss new literature and new insights gained by the ongoing taxonomical collection done by Amelie Jarlman and Bart van de Vijver. You are welcome to bring own samples if you wish.
10. The price for the intercalibration exercise **including** the workshop will be 2000 SEK including VAT (300 SEK extra for single room, if available).
11. It is possible to connect the workshop participation with the participation in the Nordic Diatomists' Meeting 20.-22. November 2013 held at the same place. The price for that meeting is 1100 SEK including VAT (300 SEK extra for single room, if available). Contact Maria Kahlert if you wish to stay for both meetings.

Deadlines:

- Before 30 June 2013 – Announcement of participation and address (to which the samples will be sent) to Maria Kahlert (maria.kahlert@slu.se). Please send as well your invoice address and invoice reference number, if applicable.
- May-July 2013 – Samples will be sent to the participants
- 15 October 2011 - Results must be sent to Maria Kahlert (maria.kahlert@slu.se)

Kind regards,

Maria Kahlert, NORBAF network coordinator

Reference:

Kelly, M. (2001): Use of similarity measures for quality control of benthic diatom samples. *Wat. Res.* Vol. 35 (11), 2784-2788.