

**From:** Brandrud, Tor Erik <tor.brandrud@nina.no>

Hello Helsinki,

We have had a nice and constructive Phlegmacium meeting in Bienenbüttel, and we all would like to include you more “tightly” into our Phlegmacium clade work:

***Sect/Clade Riederi:***

Here we have already decided co-operation; and Balint gave us some news from the The Phlegmacium type study, including some Hungary sequences (which were not in the latest cladogram by Tobias). Basically there are three news to be incorporated in draft including cladogram;

- (i) New clade (OTU 10) *C. glaucocyanopus*, with type sequence and two sequences from Hungary; differs by 10-11 basepairs from clade 7. Clade 7 should be called *C. anomalochrascens*!
- (ii) The correct name for OUT 6 is *C. pseudoarquatus* Smith 1944 (= *C. smolandicus*) (acc. to type studies)
- (iii) The correct name for OUT 4+5+8 should be *C. fallaceicolor* R. Henry (type studies)

The status of the two morphotypes in the complex OUT 4+5+8 was also discussed, and the conclusion was that with the fairly limited knowledge on the morph variation, and since these two morphotypes do not correlate with genetic variation, these should not be distinguished as taxa. One possible hypothesis is that the macromorph variation here is due mainly to the (large) variation in development of bluish pigment here (which could be phenotypical or at least infraspecific variation). Since we now also have an older name available, it is more easy to accept that we at least for the time being treats this as one species. . That is, OUT 4+5+8 is treated as one taxon; *C. fallaceicolor* (= *C. “jotunae”* + *C. “thamnus”*).

Next steps:

- Tobias sent representative sequences of the (major?) OTUs to Helsinki (NB: Tobias, please include the latest two sequences of *Telamonia reginae/holophaeus* in your sending!)
- Kare/Tuula send their Riederi sequences (except for 3x *C. glaucocyanopus* and type of *C. fallaceicolor* which already Tobias has got from Balint)
- The types of *C. argenteolilacinus* (by Tobias) and *C. riederi* (soon arriving Oslo) is sequenced.
- Tobias make a final new cladogram
- Balint make a draft of description of *C. glaucocyanopus*
- Tor Erik finishes spore scattergram
- all contributors adds missing data to manuscript, do correcture, and send pictures to be included in picture gallery (as a working document)

Publication:

Preferentially in *Mycological progress*, and afterwards a more popular one with pictures in *JEC* (2014)

Deadline: We aim at submitting a manuscript to *Myc Prog* as soon as possible (preferentially before 15. Of June?)

I gladly repeat how useful a broad cooperation has been for the result of this clade study, and we already harvest fruits of the present cooperation and sequence exchange with the “Helsinki/Balint”-group!! Superb!

***Infracti:***

One year additional sampling/study work and then publication.

Many clades with one/few collections.

We need more collections/DNA-data from (i) Northern Europe (inkl. distinct clade from calciphilous Tilia forests) and (ii) Mediterranean areas (inkl. Quercus ilex, Q. suber and Cistus habitats)

Concerning Northern Europe, one (of three/four) coniferous forests clades have mainly material from N Europe; two collections from calciphilous spruce forests of Lunner, Oppland Norway, and one Balint collection from Oulanka . The position of subalpine Betula forest collections is unclear, and we need more material.

### **Alluti**

Here we very much (also) would like to co-operate with you in Helsinki!

We now have 9 or 10 distinct clades, but more studies are needed. For instance, how can the two "major" C. multiformis clades be separated morphologically; the mainly Nordic C. multiformis (incl. CFP collection) and the mainly C. European C. multiformis (which seems more robust, more marginate bulbous, etc.) And, as mentioned in other mails; how to separate C. "cyanoallutus" clade from C. caesiolamellatus/C. caesiophyllus clade? Here we also need one more year of sampling and morph study.

The Garnica tree: Sigisfredo Garnica is in Chile with students at the moment, and no submittance date for this publication was known by the involved in this project.

JEC publications: **The publication of Riederer group in JEC is delayed until 2014**, but Tor Erik B and Francesco B will publish a treatment of the Claricolores/Praestantes, with focus on the C. blattoi (=C. lapponicus = C. pseudovariegatus history). If you in Helsinki have some views upon the taxonomy e.g. of C. claricolor, please give us a hint.....

On behalf of the JECPhlegmacium group,

Tor Erik