

#6 OCTOBER 2018



Vaasa- seminar, study visits and meeting

This newsletter highlights two days when the TransAlgae project group met and worked together in Vaasa. Interesting results of the work during this summer and three new infosheets can also be found in this newsletter.

EXCHANGE OF ALGAE BETWEEN COUNTRIES

Michael Roleda and Ralf Rautenberger from NIBIO have harvested 30 kg of the macroalgae *Laminaria digitata* from the sea outside of Bodö and transported it to Finland. An example of how skills and equipment is being shared during this crossborder project. Andreas Willfors and his collegaues at Novia UAS are looking forward to starting testing the biogas production of macroalgae in a larger scale than has previously been tested.



Michael Roleda from NIBIO delivers 30 kg algae to Andreas Willfors at Novia UAS in Vaasa after crossing two borders.

TRANSALGAE SEMINAR IN VAASA ON SEP 12

Our seminar was held in a lecture hall at the VAMK UAS and attracted around 70 participants. Together the project partners served an overview of our project from production via testing to marketing.

The presentations were in a popular science mode and the target groups were people with little or no previous experience of algae

All presentations and a film from the seminar can be found at the <u>project homepage</u>.



There were a lot of students in the audience at the seminar.

A TASTE OF MACROALGAE

During the coffee break, it was possible to taste six different species of fresh macroalgae from Norway. For those who dared to taste the macroalgae, the taste was surprisingly different between the species. "Seafood, chrunchy and salty" were some of the comments.

In Bodö, algae excursions for people interested in picking their own algae have started. Algae are a new kind of edible to pick in nature besides berries and mushrooms.



Six different species of algae were offered for tasting at the seminar. All of them were pick from the wild outside of Bodö.

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"Umami, crunchy and salty" were some of the comments on the taste of the macroalgae.

ENGAGING YOUNG PEOPLE

During the project time in TransAlgae, a lot of young people have got in contact with the project in one way or another. Through study visits, during courses and case studies as well as master theses, the project has spread the knowledge of algae in the Botnia-Atlantica region. This autumn, University of Vaasa and Novia UAS have started to collaborate in two courses with algae as one theme. The work from the students is hopefully going to be used within TransAlgae.



Petra Berg, University of Vaasa and her students.

STUDY VISIT AT STORMOSSEN AND FUEL LAB

Just outside of Vaasa, the TransAlgae project team visited Stormossen, which is a regional waste management company, owned by six municipalities having a total of 100 000 inhabitants. Stormossen Biogas Plant produces biogas and decomposed humus material out of the biodegradable fraction, i.e. food waste. Biogas is upgraded to biomethane that serves amongst others the city buses in Vaasa.

Stormossen is in the reference group and has been involved in discussions, especially with Novia UAS regarding the biomethane potential for algae.



At the University of Vaasa, Katriina Sirviö presented to us information on biodiesel quality and the fuel laboratory.

WORK DURING SUMMER

This hot summer has been a little bit too hot to be optimal for the Nordic algae species. Anyway, the cultivation at SLU has focused on to test ponds with and without addition of flue gas (carbon dioxide). The results seem promising and will be evaluated during the autumn. The cultivation at University of Vaasa and Nattviken is done in indoor environment and the experiments have continued.

Novia UAS has prepared for an anaerobic test of macroalgae in a larger scale and has also started to test pretreatment methods of algae.

At Mid Sweden University, some additional tests on HTL have been done and a manuscript is under preparation. NIBIO is also preparing a manuscript together with SLU.



The two cultivation ponds at the CHP-plant Dåva in Umeå where SLU is testeing cultivation with and without flue gases during the 2018 season.

THREE NEW INFOSHEETS

Since the last newsletter we have published three new infosheets at <u>biofuelregion.se/transalgae</u>:

- No 11 Lipid and fatty acid production by microalgae by Carolin Nuortila, Katarina Martonen, Sandra Lage and Francesco Gentili
- No 12 Biodiesel quality by Katriina Sirviö
- No 13 Opportunities and barriers of algae based biogas by Janni Lohiraja and Petra Berg



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