

Present

Andrew Mackenzie	Lews Castle College
Prof Lisbeth Truelstrup Hansen	Arktisk Teknologi Center, Greenland
Dr Alasdair Macleod	Lews Castle College, Stornoway
Jon MacLeod	An Lanntair
Máire Ní Einniú	Údarás na Gaeltachta, Na Forbacha, Co. na Gaillimhe
Clíodhna Ní Ghríofa	Údarás na Gaeltachta, Na Forbacha, Co. na Gaillimhe
Dr Ronan Sulpice	NUI Galway
Ms Agnes Mols Mortensen	TARI – Faroe seaweed
Dr Angus Murray	Lews Castle College

Apologies

Dr Roy Bartle	Lews Castle College
Prof Rúnar Unnþórsson	University of Iceland
Prof Francesco Gentili	Swedish University of Agricultural Sciences
Calle Niemi	Swedish University of Agricultural Sciences

Minute

	ITEM	Comment	Decision	Task	Who?	By date
1.	Approval of minute of 25 June 2020	The minute was approved.	No matters arising.			
2.	Update on progress by person/organisation since last meeting at the end of June.	<p>Lews Castle College Roy Bartle: Has obtained the full drying curves at 40, 50, 60, and 70 °C, and the desorption isotherms at 25, 40, 50, 60, and 70 °C, for both seaweeds. He hopes to have the raw data analysed and a first draft of the results circulated within a fortnight. He has also sent Francesco/Calle samples of Alaria, dried at different temperatures, which they have received in good order.</p>				

ITEM	Comment	Decision	Task	Who?	By date
	<p>Andrew Mackenzie: Chasing up FLC and finance claims – completing Period 1 Project Report. Been in contact with Michela Gaifami regarding a number of issues and she has asked us to participate in the NPA 2020 Annual Event - Innovation for smart and resilient communities (http://www.interreg-npa.eu/events/npa-2020-annual-event-innovation-for-smart-and-resilient-communities/) be held on 23rd September 2020, from 11:30 until 17:00 CET, in the city of Oulu Finland. The format of the event will be mixed: online and physical for local participants only, due to the restrictions in place in most European countries in response to the Covid-19 crisis.</p> <p>To take part we would have to register – this closes on 11 September 2020. At this stage I do not have details of our possible participation, but she did mention “breakout sessions.” (Innovation in the bio-based industry: NPA projects innovating in the use of biological resources, the cases of seaweed, barley and...food wastes.)</p> <p>In discussion with Scottish Seaweed (Richard Searle admin@seaweedsotland.org) about sending our questionnaire to members. He will consult with other directors but he thinks they could do this for us if we agreed to a few things.</p> <ul style="list-style-type: none"> • A payment / fee arrangement would be needed • Agree if the results of this survey are going to be retained within SW-GROW-GROW or published, if so published to who and when? And would you be asking a charge for the SSIA or members to see the results? • The questionnaire itself raises some questions starting with the clear implication this is not just a Scottish or UK questionnaire, but to other countries to? Again, this raises the question of how results will be published and shared? <p>Richard Searle suggests that the questionnaire could be improved if there was a clearer separation between Cultivation and Harvesting questions. Most questions are clearly aimed specifically at cultivation, harvesting of natural populations seems to be thrown in as an afterthought. And while cultivation is currently top of every R&D and Environmental agenda, it should not be forgotten that in quantity terms the harvesting of natural populations remains much larger (e.g. Ascophyllum in the Hebrides).</p>				

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	<p>Alasdair Macleod: Emphasised that we will shortly be in the third period which means that reporting for the second period must start immediately - including all the claims. This will obviously be difficult because of the COVID-19 effects.</p> <p>We should now be in the state where we are looking for pilot projects starting immediately. So, everyone should look at all the activities they have, identify the pilots that you think that you will do and plan effectively. At Lews Castle College we will take the work that Roy has been doing and build that in to our renewable energy model and start doing tests on drying seaweed using renewable energy – including a large-scale system that we will be able to show SMEs. Rúnar who is doing something similar should consult with Roy to make sure that our efforts are complementary rather than identical.</p> <p>The 1st year is finding our feet and establishing the state of the art, 2nd year is Activity and 3rd year is dissemination and using this information. We need to have a face-to-face meeting to discuss but, unfortunately, this will be difficult with COVID-19 restrictions.</p>				
	<p>Swedish University of Agricultural Sciences On holiday.</p>				
	<p>An Lanntair Jon has access to the mainland and met up with Steve Husband who is working on a solar drier and saw some of the progress that he has made - but feels that colleagues from Lews Castle College should visit and assess the engineering aspects. Also been in touch with the seaweed project in Skye CLIMAVORE. This “On Tidal Zones Oyster Table” (https://atlasarts.org.uk/projects/climavore-on-tidal-zones/) explores the environmental impact of intensive salmon aquaculture and reacts to the changing shores of Portree, Isle of Skye. Each day at high tide, the installation works as an underwater multispecies oyster table, inhabited by filter feeder bivalves/dà-shligich and seaweeds/feamainn. At low tide, the installation emerges above the sea and functions like a dining table for humans. In addition, planning a 2-day survey of seaweed resources in the Western Isles.</p>				

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	<p>An Lanntair are back to work in mid-August and Jon will start work on developing the “cultural” side of seaweed use etc. He has had a meeting with the School of Scottish Studies and some progress has been made. Lews Castle College have resources to help with this work and have agreed to meet with Jon to develop this further. It is expected that Steve Husband will be part of a pilot – so Lews Castle College staff and Jon need to have a physical meeting with him to discuss – in the next couple of months.</p>				
	<p>Arktisk Teknologi Center, Greenland Been affected by COVID-19 - so much of the drying studies originally planned to be done in Greenland have not been possible. Instead, they have been comparing seaweed from the Faroe Islands and Greenland. In terms of the Greenland seaweed, as part of T1.2, they plan to study the effects of seasonal variations in harvesting at two different times – June and July - this also ties in with biofouling T3. Instead of doing a drying study they are concentrating on doing fermentation as a pilot but hoping to get back into some work on drying next year.</p>				
	<p>TARI – Faroe seaweed Their harvest is done, and samples have been sent to Francesco and Lisbeth and samples are ready to be sent to Ireland. With both sites almost completely empty it is known that during July and August the quality of product decreases because of biofouling and the presence of other compounds so they intend to do a second round of analysis with regard to different compounds and to evaluate the food value of the crop. The last samples will be taken in August and sent to Francesco and Lisbeth as well as to a local lab for standard analysis of minerals and vitamins. Also, still taking samples of seawater and looking at bacterial flora in the water and the crops until the end of August. In a month, or two, they will have a full hatchery. Both licences applied for have been granted and run until 2032 but it will not be possible to have the hatchery operational at Fámjin this year. If the intended pilot to run the hatchery on “green power” is to go ahead then Agnes will have to consult with Roy on the engineering detail. There is already pipework and a lake with a head of 20 or 30m but no turbine.</p>				
	<p>Údarás na Gaeltachta The Press Release has been completed but no contact details have been received from Partners for interested parties who would be interested in receiving copies. Andrew suggested that the Scottish Seaweed Industry Association may be able to circulate to their members (Action – Andrew) - Web site data have been sent to Angus and the site has been updated.</p>				

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	<p>Looking for 1 technical report to be released each year and this is scheduled for next month. Clíodhna has e-mailed Agnes to see if her work on cultivation would be a suitable subject re best practice. An enquiry was received from Australia via the web site (copied to Ronan) so this shows that we are getting the message across and that our dissemination is working. A Technical paper should be produced each year and the requirement would be for one to be produced by the end of August on cultivation (TARI) but it was suggested that Roy may be in a better position to produce a paper on the work that he has been doing on seaweed drying by this deadline. It was proposed that Roy should produce a paper on his work by the end of August to be published in September (Action – Roy).</p> <p>Clíodhna reminded everyone to send in any pictures or information that she can use on the various media channels (Action – All Partners).</p>				
	<p>NUI Galway</p> <p>The selection for the Post Doc is done and the papers are with Admin with an anticipated start on 1 September. Some <i>Palmaria palmata</i> has been collected and sequencing will start next week (w/b 10 Aug) but no <i>Alaria esculenta</i> was found for analysis. It is hoped that Agnes at TARI could send some samples – fresh is better if possible. However, Agnes offered to send frozen samples in the meantime because the logistics are easier and will look at the feasibility of sending fresh if frozen samples are not satisfactory. It is also possible that UDARAS may be able to source suitable samples for analysis.</p> <p>Ronan reported that there has been an enquiry from an Australian company who are buying seaweed from farmers. The company is buying <i>Ascophyllum</i> in flakes but is not convinced that the product is completely pure and has asked NUI to check the quality using genetic tools. Preliminary work indicates that the techniques used are satisfactory in identifying <i>Ascophyllum</i>, but it may be more difficult to assess the purity of samples. If these techniques work, then they can be used for all producers and suppliers in the NPA area and this may be developed to produce a certifying service for growers. Work already undertaken allows for genetic identification of species - as well as geographical origin with good precision.</p>				
	<p>University of Iceland</p> <p>No information available.</p>				

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3	Website status	Some initial problems have been resolved (icons not showing etc) and the web sites are working well. All minutes of SW-GROW meetings for Period 1 and Clíodhna's press release have been uploaded to both websites. On the main website they are under documents. On the mini website they are under Resources.				
4	Project Plans for all work packages – discuss	Andrew requested, for achieving the project objectives, each workpackage should have a Gantt chart (with milestones) associated with it. This would ensure that we can clearly track progress for each sub-section of the work package. Also, that when reporting progress, the work package identifier is used (e.g. T1.1.2). Alasdair commented that we need to have everything done in the second year! In	Consider organising a face-to-face meeting in October to finalise this proposal (to replace the cancelled Greenland meeting). Since meetings can only be held in the NPA area, Inverness was suggested since it is easy to get to. Ireland was discussed but COVID-19 travel restrictions ruled this out for now.	Keep an eye on the COVID-19 situation re travel restrictions for a meeting in October in Ireland or Inverness.	Andrew Mackenzie	October 2020

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		year 3, all the emphasis will move to UDARAS and An Lanntair (branding) who will guide us through that. The pressure is on everyone to deliver 4 good pilots that will deliver good outputs by July 2021.				
5	Any other business	Clíodhna mentioned that there were several SMEs near to them who might benefit from being involved in the “Shared Infrastructure” part of the project. Information from the questionnaire should feed into this study to get an idea of the needs if the Industry.	It was agreed that a “shared document” space should be set up that would allow all Partners to add information about infrastructure (and common cultural aspects) in their own country. Joint working between UDARAS and An Lanntair.	Set up the system.	Clíodhna	Before 26 August.

Summary of Actions

ACTION	WHO	WHEN
Discuss with Richard Searle how the questionnaire could be improved with clearer separation between Cultivation and Harvesting questions.	Andrew	11 Aug 2020
Discuss with Richard Searle if the Scottish Seaweed Industry Association may be able to circulate the questionnaire and Press Release to their members	Andrew	11 Aug 2020
Arrange a physical meeting between Lews Castle College staff, Steve Husband and Jon to discuss a pilot – in the next couple of months.	Andrew	As soon as possible
Consider organising a face-to-face meeting in October to finalise the proposal to have a Project Plan for all work packages (to replace the cancelled Greenland meeting). Keep an eye on the COVID-19 situation re travel restrictions for a meeting in October in Ireland or Inverness.	Andrew	As appropriate
Produce a paper on his work on drying to be published in September.	Roy	By the end August
Register for the NPA 2020 Annual Event - Innovation for smart and resilient communities (http://www.interreg-npa.eu/events/npa-2020-annual-event-innovation-for-smart-and-resilient-communities/) be held on 23rd September 2020.	All	Before 11 September 2020
Send in any pictures or information that Clíodhna can use on the various media channels.	All	As appropriate
Set up a “shared document” space that would allow all Partners to add information about infrastructure (and common cultural aspects) in their own country. Joint working between UDARAS and An Lanntair .	Clíodhna	As appropriate

Next meeting:

Skype Wednesday 26 August 2020