

THE SCOOP

MOWI[®]



Scalpay

First seaweed harvest at Scalpay

Just a couple of months after our first salmon harvest at Scalpay, which delivered a superior grading rate of 96.67%, the very first crop of sugar kelp (*Saccharina latissima*) has also been harvested at the adjacent seaweed farm by KelpCrofting Ltd.

This is another important milestone for the sites which are pioneering the use of integrated multi-trophic aquaculture (IMTA) at a commercial scale.

The farm at Scalpay is part of a study involving the University of Stirling, local shellfish partners and sustainable seaweed farming company KelpCrofting. Ultimately, the study should help to determine if locating a salmon farm adjacent to a seaweed and shellfish farm can benefit different species of marine life.

The Scoop spoke to Environmental Analyst, Laura Tulip, to find out more: "This is another important milestone at Scalpay. The team at KelpCrofting is pleased with its first harvest and whilst we need a control to scientifically prove that the growth and quality of the seaweed has benefited from the nutrient enrichment from our salmon, the early signs are promising. Later this year, KelpCrofting will install a new kelp farm in the waters of South Pabay. Located away from the salmon farm, this will give us a point of comparison to

determine whether the seaweed is directly benefitting from its proximity to salmon."

KelpCrofting ensures that nothing is wasted from the seaweed, as Kyla Orr, Co-founder and Scientific Director of KelpCrofting, explains: "So far, we have harvested over eight tons of food grade sugar kelp from Scalpay. It is evident that the kelp is growing rapidly with each week that passes, and some fronds are nearly two metres long after only four months at sea! We will continue to harvest weekly into June and look forward to seeing how much more this super crop can yield."

"The kelp being harvested during May and June is part of a collaborative Innovate UK project with Oceanium and Efficiency Technology. After each landing, the batches of high-quality kelp are delivered locally to Kyle of Lochalsh for primary processing (chopping), after which it is transported to Oceanium's trial biorefinery in Cheshire for further processing into nutritional supplements, plant-based protein and biodegradable packaging."



Yvonne Booth and Laura Tulip



Sugar kelp

Introducing the Aqua Skye, the largest wellboat in Scotland

We have a long-term contract with DESS Aquaculture Shipping to use the Aqua Skye, which has already cared for approximately 10,000 tons of salmon since it arrived in Scotland earlier this year.

The largest wellboat in Scotland, here's what you need to know:

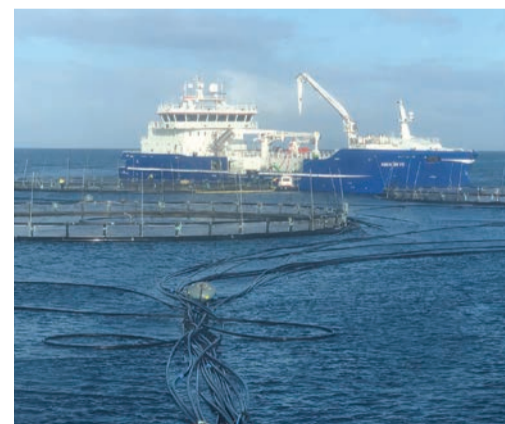
- It is just over 84 metres long and 16m wide
- It has a net well volume of 3,900m³
- It is fitted with a reverse osmosis plant that can produce up to 4,500m³ of fresh water in a 24-hour period.
- It has self-cleaning fish tanks and a separate counting system.
- It is equipped with a "waterfall" system for de-lousing during unloading.

Head of Marine Operations, Sean Anderson, spoke to The Scoop about how the Aqua Skye is performing so far: "It has

already been used at several sites for freshwater treatments, thinning down and moving fish.

"The Aqua Skye will be used across all of our seawater sites to provide a freshwater remedy against gill damage and tiny skin parasites. With the addition of this vessel, we can provide more non-medicinal health solutions for our fish.

"Because of the sheer size of the vessel, we can now load and treat much more fish in one go than we've ever been able to before. This means we can complete farms much quicker than before and move on to the next farm to stay ahead of the game."



Plankton preparedness

Warmer weather and warmer sea temperatures mean we can anticipate an increase in plankton that may harm our salmon. As we approach summer, The Scoop caught up with Meritxell Diez Padrisa, Health Director Scotland, Ireland and Faroes, to find out more about our plankton preparedness.

"I am confident, as we approach the plankton season, that we are better prepared than ever before to monitor and identify plankton and intervene appropriately to minimise the risks posed to the fish in our care. We have better knowledge and a revamped monitoring programme to ensure that the knowledge is held by all our farmers, as well as better equipment both for sampling but also to enable real time identification."

Better knowledge

As with many aspects of our business, the fish health team in Scotland has maximised the ability to learn from the experiences of our colleagues in other countries. In the case of plankton, our fish health team learned a lot from the teams in Canada and Chile, with Health Manager, Lucy Munro, spending time with her counterparts in Canada.

Meritxell continues: "We now have a central database which holds all of our daily plankton registrations. Whilst every farm was in the habit of taking daily samples, these were recorded in the site diary. Now that they are recorded in a central online platform, it means that the fish health team, especially our in-house experts Lucy Munro and Debra Brennan, can spot patterns and alert other farms in the area."

In addition, all farm teams conduct an annual plankton training on Mowi Academy to ensure that their knowledge is always up to date. This is reinforced with on-site one to one refreshers.

Better equipment

Two different types of water samples are taken on a daily basis and before any handling event takes place, such as crowding for treatment. Two types of samples are taken. A water column sample collected with a trawl, as well as discrete samples collected with a Van Dorn water sampler. This allows for water to be collected at different depths

of the water column (usually 10m, 5m, and 1m depth).

"This is really important," continues Meritxell, "because the Van Dorn samples enable us to pinpoint where the plankton are sitting in the water column and at what levels, which affects the course of action we take. If the plankton are at the surface, then we shouldn't feed the fish as we will be causing them to swim towards the plankton. Equally, if the plankton are sitting at the bottom of the pen, then aeration is usually contraindicated as this will disperse the plankton up the water column towards the surface and potentially expose the fish."

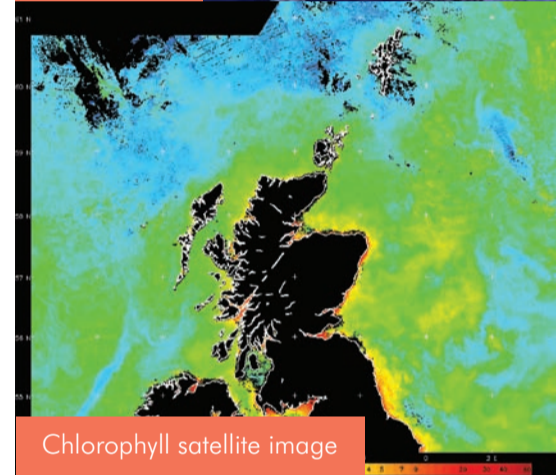
"In addition to all farms being provided with the Van Dorn, all farm microscopes have also been upgraded and now feature a camera. This means that farms can send photos to the fish health team for advice. This can even be done in real time as the cameras have the ability to connect over Microsoft Teams if internet connection is available. Despite advances in technology, traditional water samples can still be sent to our Fort William laboratory, where Debra can cast her expert eye on them. Last year, her intervention was vital to diagnose a very tiny species of plankton that caused notable problems at Stulaigh."

Finally, satellite images are also used to better understand the levels of chlorophyll in the water. Plymouth Marine Laboratory sends satellite images to Mowi every second week. These images are distributed by the health team to all farms with an interpretation and are used as an alarm system for plankton blooms. Communication between different producers is also key when it comes to early warning.

Meritxell concludes: "Special recognition should go to Lucy and Debra for their continued hard work to ensure we are better equipped to deal with issues arising from plankton."



Van Dorn



Chlorophyll satellite image



Trawl

The secret to a happy wrasse

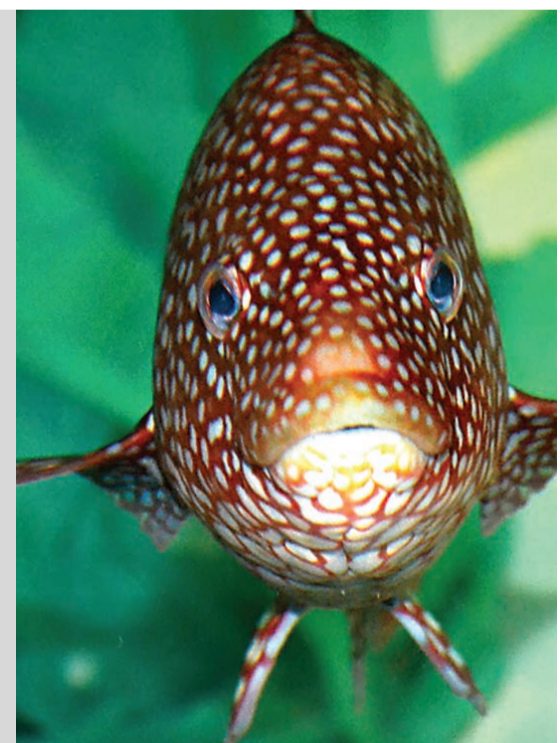
This is what Mowi, as part of a collaboration with the Sustainable Aquaculture Innovation Centre (SAIC), Otter Ferry Seafish, BioMar and Scottish Sea Farms, is trying to find out.

Ballan wrasse display complex behavioural traits which means that their ability to function as effective delousers for our farm-raised salmon depends not only on the obvious factors like keeping them well fed but also ensuring that they are content in their environment.

Researchers are considering a range of nutritional and environmental factors, such as the formulation of feed and rearing conditions, and how they impact the growth and performance of

ballan wrasse. It is hoped their work will improve the robustness, welfare, and resilience of ballan wrasse used in aquaculture and boost their ability to deal with sea lice.

Speaking about Mowi's involvement in the project, Dougie Hunter, Technical Director, said: "With our dedicated hatcheries in Anglesey, North Wales, we rear cleanerfish for deployment to our salmon farms so we already have an insight into wrasse at every point of their lifecycle. This project will enable us to increase our knowledge on this species and further improve fish health and welfare by creating the very best conditions for our wrasse to thrive."



Mowi supports The Outward Bound Trust's and The Highland Council's pioneering Highland Primary Transition programme

330 pupils from 39 primary schools from within The Highland Council region, where we operate, will participate in an experience delivered by Outward Bound to prepare pupils for the transition to secondary school.

This is our latest initiative with The Outward Bound Trust, an educational charity that helps young people to defy limitations through learning and adventures in the wild.

The Scoop spoke to Martin Davidson, from The Outward Bound Trust to find out more: "Planned transition experiences are a key focus for P7 pupils every year as they aid and enhance young people's transition to secondary school. The relaxing of restrictions nationally means that young people in Highland can look forward to participating in the exciting Outward Bound experience this year.

"We have partnered with The Highland Council to deliver the Highland Primary Transition programme to ensure that all P7 pupils are well equipped and prepared for this significant transition in their lives.

"The support of Mowi Scotland means that we can provide funding for all P7 pupils in Mowi's areas of operation. This is a big patch to cover! We will be working with pupils preparing to transition to a number of secondary schools including Lochaber High School, Ardnurchan High School, Gairloch High School and Mallaig High School to the west, Portree High School on Skye and Kilchuimen Academy in Fort Augustus, as well as Inverness Royal Academy."

The Highland Primary Transition programme is part of a larger transition programme, tailored to reflect the values of the associated secondary school and support young people as they begin their secondary school journey.

In May and June, pupils will come together in groups of 12 and take part in a session run by the Outward Bound instructors in the primary school's grounds.

The Instructors are all experienced in building rapport quickly with young people and delivering programmes with clear learning outcomes. It is hoped that the experience will help prepare pupils for what to expect as well as build relationships across the associated primary school groups.

Speaking about the initiative, Ben Hadfield, COO from Mowi said: "We have supported The Outward Bound Trust since 2012 and in that time 1,100 young people in the Highlands have benefitted from the programmes run by the organisation. Our support means that the amazing team at Outward Bound can work with young people and prepare them to deal with whatever challenges may lie ahead. The transition to secondary school is an exciting milestone but can be challenging for some and we are delighted to support the Highland Primary Transition programme to make that process as smooth as possible."

Cllr John Finlayson, Chair of The Highland Council's Education Committee, said: "This is a fantastic and exciting programme for our young people in Highland. This project, delivered in partnership with Outward Bound, is not only helping our young people to transition to higher education, the project helps to develop key skills such as problem solving, thinking flexibly and collaborating with others. These are essential skills that our pupils will need as they progress in their learning journey and will benefit them greatly when they are ready to enter the workplace."



Local hero Rosie

Fish Farm Manager at MacLean's Nose, Watch Commander for local fireteam, Deputy Officer for the coastguard team, Chair of the Community Council, a crofter and a mum of three – meet Rosie Curtis, a formidable woman we are proud to have on our team.

Rosie has been with us for 23 years. Encouraged to apply for a job by her brother and husband, who both worked for Mowi, Rosie has worked her way up to become manager and has never looked back.

As somebody who was born and raised on the Ardnurchan Peninsula, returning in later life, Rosie has experienced first-hand how important a large employer like Mowi is to small rural communities. By providing employment, communities and everything that makes a community, can thrive. In her words:

"For us as a community having Mowi here is fantastic because if we didn't have Mowi then we wouldn't have a fire team and there's also a few of us in the coastguard team too. It's really important for small rural communities, not just Ardnurchan, every community that Mowi is in has got coastguard, fireteam, lifeboats, mountain rescue, so it is vital for communities like ours to have employers like Mowi."

A farmer through and through, Rosie is proud to farm Scottish salmon and wears her Mowi logo with pride. To meet Rosie on our YouTube channel [click here](#).



Mowi in the news

MOWI gives food for thought

Once again, the recently launched MOWI branded salmon range was in the media, this time with a campaign around Good Mood Food. The brand team worked with nutrition-trained Chartered Psychologist Kimberley Wilson, author of 'How to Build a Healthy Brain', and conducted consumer research among 2,000 adults in the UK and found that they are eating the wrong food to boost their mood.

The survey found that 73% of consumers recognise a link between what we eat and how we feel but that 65% of adults will reach for the foods that are less

likely to improve their mood.

Speaking about the consumer research, Kimberly Wilson said: "I've long been an advocate of the benefits of salmon. It's far more versatile than people realise, rich in omega-3, an essential fatty acid which the body cannot produce by itself, but it is also a great source of Vitamin B12 and Vitamin D, all known to be good for mood."

The campaign was covered by lots of national newspapers including The Sun, The Scottish Sun, Daily Express, Daily Mirror, The Independent and Daily Star.



Salmon egg avocado

In the community

We were delighted to fund the purchase of outdoor suits for the little learners at Inverloch. The suits will keep the children warm and dry as they enjoy their outdoor learning.

Start of shinty season

We wish everyone all the best for the first throw up of the season on June 5th!



Mowi turns out in force at our beaches in May

As reported in our January issue, we are participating in Beachwatch, an established programme set up and organised by the Marine Conservation Society (MCS) to encourage people across the UK to care for their coastline.

Up and down the country, people are encouraged to join a beach clean and help survey litter and Mowi staff were out in force doing just that in May. First up was the team from Carradale who cleaned the beach and surveyed litter at Port Righ.

Throughout the course of the month our teams from Gorsten and Linnhe tackled Caol Beach and the staff from Uist were at Cladh Hallan Beach. Loch Shell cleaned up Gleann Ceann Eastail and Blar Mhor staff also got involved.

We are privileged to operate in some of the most beautiful coastline locations in Scotland and it is important to look after our beaches. Many of our sites regularly help to clean up local beaches but by participating in Beachwatch, we can feed into the bigger picture and support the work that MCS is trying to do.

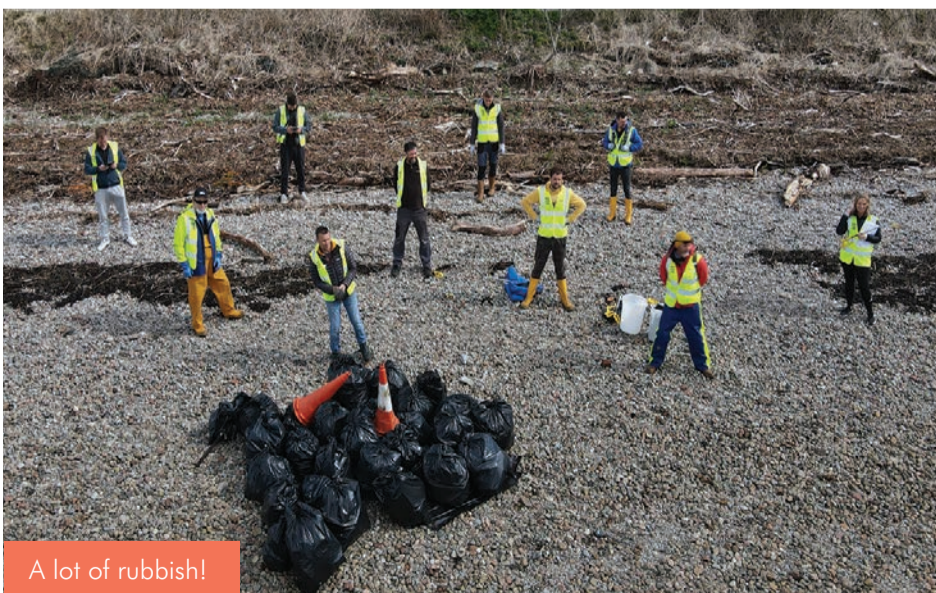
A great time was had by all and, as the photos show, it was well worth it.



Blar Mhor team



Loch Shell team



A lot of rubbish!



Gorsten team cleaning up Cool Beach