

The Grower

Newsletter for the Association of Scottish Shellfish Growers

January 2024



Winners of best Scottish shellfish at ASSG Conference



The happy winners of best shellfish competition pose in October sunshine outside the Corran Halls from left to right, Angus Vajk, *Caledonian Oysters*, Douglas Wilson, *Inverlussa Mussels*, Iain Mackay, *Hebridean Mussels*, Judith Vajk, *Caledonian Oysters*, Craig Archibald, *Islay Oysters*, John Barrington, *Creran Oysters*.

The prize plates are sponsored by Highlands and Islands Enterprise for which the ASSG is most grateful, and are supplied by well known potter, Richard Bramble. He can be found at www.richardbramble.com/. Some of the winners above may have quite a dinner set by now. It was in 2009 that Nicki Holmyard first approached him to provide our winners' plates but in turn he has added the native oyster to his ceramic collection. In appreciation of this long connection Richard Bramble is now offering a 15% discount on anything on his website not already discounted if the code ASSG15 is quoted. See page 15 for an example.

Photo credit Craig Burton

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Advertising

The Grower is distributed to all members of the ASSG, to policy makers and scientists with interest in shellfish and is sent electronically all over the world to shellfish farmers and their ilk. It is also available online at www.assg.org.uk. Why not advertise to our specialist readership?

Seasons greetings to all our readers

The Grower is a quarterly newsletter edited by Janet H. Brown, The Shellfish Team, jan.brown.shellfishteam@outlook.com

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For further information see our web site at www.assg.org.uk

Disclaimer: Views expressed in this publication do not necessarily reflect the official view of the Association

Programme for shellfish conference and trade fair at Neeltje Jans

The programme for the 8th International Shellfish Conference to be held on January 18 and 19, 2024 in Deltapark, Neeltje Jans is now available. It is about 'Conditions for a Sustainable Future of Shellfish Culture'.

What are shellfish opportunities in a sustainable and protein-rich diet, where should it be produced and what new techniques are available? Experiences about working in the shellfish sector are shared with practitioners - young and old. There are more stands than ever at the trade fair, with a total of 32 companies represented. The Producers Organization for Dutch Mussel Culture will give the traditional New Year's reception at Neeltje Jans on Thursday afternoon.

The programme provides 18 plenary presentations. There are also short pitches on current topics. At the fair there are stands about new techniques in the field of cultivation, processing, shipbuilding, hatcheries, materials and quality assurance. The poster presentations include research into mussel and seaweed cultivation in the (offshore) North Sea. The Zeeland photographer Rem van den Bosch presents a photo selection. It also includes a session on shellfish farming as a profession followed by a round table discussion with young professionals working in shellfish culture, processing and hatcheries.

You can register for the conference and dinner via the website. Visiting the fair alone is free, no registration is required.

For the venue, the programme, participating companies, posters, dinner and registration, visit the website: <https://www.schelpdierconferentie.com/en/home>

Further information: Jaap Holstein +31653912018 and Aad Smaal +31622661505



Pictured above; Pictured at Neeltje Jans, January 2014

Photo credit JH Brown

Dates for your diary

Dutch Shellfish Conference
Neeltje Jans
January 18-19, 2024

Aquaculture UK
Aviemore
May 14-15, 2024

SAGB Annual Conference
London
May 28-29, 2024

AQUA 2024 – Blue Food, Green Solutions
Copenhagen, Denmark,
August 26-30, 2024

Stranraer Oyster Festival
September 13-15, 2024

ASSG Annual Conference
Oban, UK
October 29-30, 2024

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CEO's Column

Nick's Notes

Seasonality

Another festive season distorted by the conflict of war within Europe. Despite wider hostilities further afield, our own safety and security will hopefully be valued by all. Sparing a thought for all those impacted by conflicts is part of the Christmas message and a tradition that we will hopefully continue to fully embrace, even with the passing of time.

Cold wind of change

We find ourselves in a confusing position where global leaders are currently meeting in air-conditioned luxury in one of the historically warmer countries of the world for the COP28 summit. It seems like only yesterday that the circus was in town for the Glasgow event (COP26). Possibly key similarities are that both of these host locations have relied on hydrocarbon resources to create economic wealth. There the similarities probably end, with a reported 97,000 delegates (yes, I checked - the BBC reported attendance!) heading to the UAE to make their positions clear, while Glasgow had a more modest turnout. Possibly the weather in these differing locations may have had an influence on who was keen to attend?

We have had some typically seasonal weather in recent days with large parts of the UK experiencing an icy blast – even London and the home counties, which will have come as a shock-to-the-system to those residents! Hardy northerners were also befallen by snow in Cumbria which caused chaos at the weekend (although more likely impacting weekend visitors from the south - rather than seasoned locals?).

Here on the Moray Firth the changing climate has caught out the local wildlife – but possibly not in a way many would have envisaged? I use the term local wildlife with a degree of caution.

Flotsam and jetsam

I always get the two definitions mixed up – but the



Dr Nick Lake, CEO of the Association of Scottish Shellfish Growers (ASSG)

arrival of wildlife washed up on the foreshore is always of interest. The year has been pockmarked with seabird carcasses – guillemots in the majority of cases and with cormorants thankfully in far lower numbers – bird flu – if that is the cause, making its mark widely in the northern hemisphere. Linked to the changing climate and stress in bird populations – or just an ever-present but more prominent factor in the natural population dynamic?

The recent cold snap saw a slightly more exotic casualty (*see below*). The Garfish (*Belone belone*) is found throughout the UK but typically in the warmer waters of the south and west. In the winter months it will inhabit deeper offshore waters. The juvenile of about 30cm length was immaculate in appearance, but frozen ridged on the tideline. Unfortunately, with the warming North Sea basin this individual had likely considered it an acceptable habitat – until of course onshore winds and a rough sea coupled with air temperatures of minus 6°C proved too much to withstand.

Some of our marine wildlife is undoubtedly changing its distribution based on sea temperature rises and associated biotic factors such as food supply. Future inshore challenges may also involve salinity decreases and increased terrestrial sediment loadings (not to mention other human generated wastes). However, this seems unlikely to be a geographically uniform change. The North Sea basin at least in the south, is showing signs of heating up more rapidly than even west coast areas which are traditionally influenced by the Gulf Stream. Recent research findings have also intimated that the Gulf Stream could be over-turned and fail to travel up the west coast of the UK. What is startling is that one scenario indicates the possible reversal could start to be evident by as soon as 2026.

Should this occur the climate is considered to likely resemble more closely that of Atlantic Canada, with warmer summers and far cooler winters? The small amounts and short periods of snow we have had to deal with in the past half century may well be longed for in the future.

Festive season

What does any of the above have to do with the cultivation of shellfish you may well



CEO's Column cont.

ask? Well, this time of the year means to me that our annual Oban shellfish conference has once again taken place and the conversations there should have opened up new thoughts on how the industry will be influenced and developed in the years to come. There is a full report on this year's proceedings elsewhere in this edition.

Typically, I also equate Christmas with our annual shellfish gathering on the basis that it takes more than 6 months to organise and is over in a blink of an eye, and I probably am not able to catch up with everyone I would like to! St Nicholas being over stuffed may be another similarity which some may suggest and I don't want to contemplate!

For shellfish growers, processors and distributors the run up to the Christmas and New Year also means being extremely busy readying stock and fulfilling orders. Extreme weather conditions make this process more problematic both in harvesting and transport solutions involving ferry and road journeys.

This was a realised risk at this years "Best Scottish Shellfish" competition and awards in Oban. 4 days of ferry disruption in Shetland due to stormy conditions resulted in no mussel landings to the mainland.

If you are an oyster grower conditioning of stock higher up the foreshore is also open to concerns of air exposure to freezing conditions and of course damage caused by storms in shallow waters or greater exposure to fresh water runoff.

While climate generated issues were not the theme of this year's ASSG conference the impending changes, challenges and potential opportunities likely to emerge could be transposed on to the issues discussed by our range of expert speakers.

Where do we go from here?

Regardless of what is determined at COP28 basic changes to the world's climate are already pre-programmed by our industrial and social past. Decisions for the present may have an impact as to the ultimate severity for civilisation - only time will tell. However, we know change is coming we just are not in a position as yet to figure out with any great confidence the scale, or how we can minimise impacts on society?

From a bivalve shellfish perspective, it is pretty evident that we are only just beginning to realise just how little we know about the species and the environment in which we cultivate them. Luckily, we have the interest and expertise to apply modern scientific techniques to identify the questions we should be asking. In some cases, answers are already emerging but which indicate the breadth of our lack of knowledge and understanding.

World leading

It usually makes me cringe when I see these two words appearing together – typically in some government press release drafted by a PR department with no clue regarding the reality of the particular topic under discussion.

However, I have no doubt that when referring to the Roslin Institute as part of Edinburgh University, Scotland has many world leading research teams working on animal production issues. The shellfish industry is particularly fortunate in now having two research teams at Roslin with a direct interest in the dynamics of bivalve production.

We were extremely lucky in Oban to have had both Tim Bean and Tim Regan presenting on their areas of research, which also fortunately focus on oysters and the blue mussel. Hence issues of direct relevance to all our producers and indeed consumers.

I had promised delegates a mind-boggling insight by Tim Bean into the world of the marine microbiome – and he did not disappoint! The gist of the presentations can be found on our website www.assg.org.uk. Suffice to say a quick glimpse into this world results in a host of questions rather than definitive answers. But the old proverb along the lines of - it is not the tiger in the jungle which is your enemy - rather the infected scratch on your body that will see you off - appears to be highly relevant. (Even though of course the effects of climate change have yet to produce jungle like vegetation in the North of Scotland!)

Micro-organisms are the basis of the health of the marine environment and when the balance is disturbed an imbalance of one species (or even strain) over another can have dramatic impacts on higher organisms.



The **National Shellfisheries Association (NSA)** is dedicated to the promotion of knowledge pertinent to the biology, ecology, production, economics and management of shellfish resources. Join scientists, policy managers and industry members to help ensure that we all know of and use the best science and practices to manage and enjoy these valuable resources sustainably

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CEO's Column cont.

Without going into the detail (which frankly is rapidly becoming beyond my paygrade) issues related to bivalve shellfish health and survival are intimately tied up with the genetics of the host, the microbiome throughout the life history stages, and possible physical/chemical environmental stressors.

One practical example is the recent findings from other researchers who have shown the co-existence and expression of Oyster Herpes Virus which is able to cause mortalities in rock oysters, which can be potentially closely influenced by the presence of certain *Vibrio* bacteria. In untangling the shellfish response to dealing with potential pathogens this means considering not only the genetic makeup of the oyster – but also likely its life history exposure to a range of micro-organisms and of course physio-chemical conditions such as salinity, physical disturbance, temperature etc.

If we add to that equation the issue that some strains of a single *Vibrio* species can be benign while others can become pathogenic in their own right, you then also have to determine what caused the change to the bacterial strain to activate its pathogenicity?

Times two

Then we move to consider the other part of the equation – if bivalve shellfish have managed to survive since evolution what defences do they have against pathogenic micro-organisms?

Tim Regan also stretched our minds with an overview of the mechanisms available to bivalves to resist stressors and pathogens including the ability to utilise a host of variable gene sets, quite unusual in the armoury of even higher organisms. Again, greater detail can be found in the presentation slides on our website.

Tim Regan's work is very much open to setting questions and gaining a better understanding of how particularly the blue mussel can remain healthy under the current and potentially changing environmental conditions? The influences of the endemic *Vibrio* species which have been shown to occur throughout the World, are considered to be an important factor for our own industry. While the health of the shellfish both in the wild and under cultivation will be the emphasis of Tim's research – he also noted that certain *Vibrio* species are becoming a human health hazard under changing environmental conditions. Hence a better understanding of the marine microbiome and the defence mechanisms of bivalves is of direct relevance to mankind under what will be, challenging conditions for food production in the years ahead.

We plan to run a workshop in Oban immediately after next year's ASSG conference as a way of encouraging discussion of ideas between our leading shellfish researchers. This would be both to encourage and focus questions and efforts, and potentially improve industry understanding of issues relevant to safeguarding or enhancing production operations.

Changing environment

Environmental changes in the coastal and shallower water areas of our seas are a constant feature both seasonally and over time. Any oyster producer will tell you the years it takes to work out the ebb and flow of all states of the tides on a production site, and the associated sediments that can be moved under differing weather conditions. We are all also at the mercy of the winds and tides in terms of the marine organisms which appear and then can disappear often for years, before re-emerging when conditions suit.

One good example of this is with respect to marine worms – and particularly those settling out from the zooplankton. Shell fouling from *Pomatoceros* spp. worms leaving the white calcareous tracks on the mussel shells can be a major issue during one production cycle and then not be seen for many years in the same location. Equally crabs, starfish, brittle stars, barnacles and a whole host of creatures can come and go as niches become available at a defined time to allow successful settlement. The seas have always thankfully been a soup of planktonic creatures looking for a niche to inhabit.

The Scottish Government is in the process of

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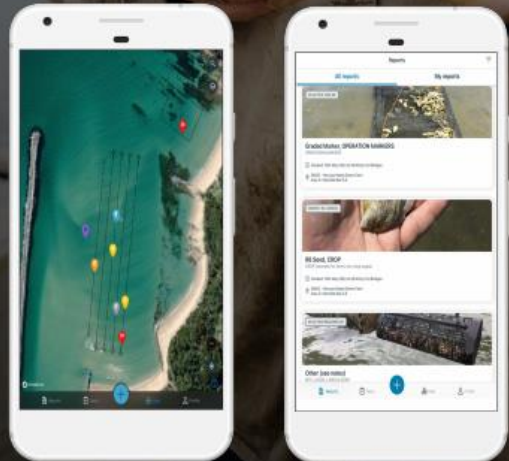
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CEO's Column cont.

consulting on the Scottish Biodiversity Strategy which is one of a range of policies likely to impact stakeholders not only on land – but also the coastal environment. While the issues of biodiversity loss in the terrestrial landscape are relatively clear it is more difficult to assess whether we are seeing losses or simply ongoing environmental change in the marine environment.

Both seabirds and certain cetaceans are the noted species where population declines are associated with marine biodiversity loss. With bird flu rampant it is difficult to envisage how any biodiversity loss strategy will be able to meaningfully remove one of the causal factors? However, consideration of food availability and breeding success are other likely routes to help stabilise the populations and which may have a realistic chance of making an impact.

The prospect of Highly Protected Marine Areas being introduced as part of a biodiversity loss strategy has been withdrawn by the Scottish Government. The aim is still to achieve 30% of land and sea areas to be under protection and conservation by 2030. Priority Marine Features which include species such as the native oyster and habitat types such as mussel mud will be protected through improved management of potentially impacting activities such as bottom contacting fishing gear. However, taken in isolation it seems unlikely that this will provide the necessary conditions for any regeneration of wild stocks.

It is with respect to so called Non-Native Species occurrence in the marine ecosystem that it is most difficult to reconcile the desired outcomes of conservation objectives, and the realities of a borderless environment.

Conservation / Preservation

The desire to see 30% of the marine environment protected is a worthy ambition – but that immediately raises the question of what is the expectation for the other 70%? From a shellfish cultivation perspective, we would be pleased to have 100% of the marine environment appropriately managed in order to ensure a functioning marine ecosystem exists. Not a surprise given the fact that we are 100% dependent upon what arrives with the tide for the success of our businesses.

Marine nature protection policy still has a long way to go to fully understand the dynamics of the environment. The recently published Scottish biodiversity strategy typically relates to planktonic life stages being the basis of a healthy marine ecosystem. Similar statements have emerged in the National Marine Plan 2 and clearly indicate the convenience of simply basing our policies on historic perspectives. Unfortunately, future battles for the health of the marine environment are likely to need to focus at the microbiome level, as man's inputs are undoubtedly causing a change to the natural balance. Climate change being but one dominant factor.

We desperately need a functioning marine

ecosystem for commerce, health and enjoyment – but it seems unlikely that all the species of sea creatures which we currently are trying to preserve will naturally find a niche in an environment impacted by climate change. What we can be assured of (provided we don't continue to simply regard the oceans as a waste disposal unit) is that given our borderless seas the tides will continue to deliver an endless supply of organisms looking for a niche to inhabit.

Species preservation policies we should all be aiming to achieve are in the context of *Homo sapiens*, nature conservation policies should be focused towards maintaining a functioning marine ecosystem for all the trophic levels. That may include some more exotic species becoming opportunistic features or naturalised within our Scottish coastal waters.

New Year / new perspectives

Hopefully the festive season will be enjoyable for all and we can enter the New Year with renewed optimism.

Just one date for the diary, the ASSG 2024 Oban Conference will be on the 29/30th October.

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ASSG Conference; “Where do we go from here?”

Janet H Brown reports

The ASSG annual conference in Oban comes around again, and like a roundabout, some people get on and some get off. There are familiar faces to greet and new faces to meet; a good time perhaps post-COVID etc to pose the question, “where do we go from here?” Clearly interest was high in the answer to this question, with over 150 delegates attending in Oban, an international audience even, with once again having the class of the EU funded MSc Aquaculture, Environment and Society – STAR attending on the first day plus exhibitors from overseas.

Nick Lake opened the conference – with grateful thanks to the sponsors for making it possible. He also welcomed that the audience have no excuses ever to buy plastic bottles, CIEL (one of the sponsors) provided industrial reusable water bottles for all.

“Where do we go from here?” was the theme for the conference but as Nick said, there are no fences in the sea so we are pretty much still in it together (last year’s theme!). A recurrent thread through the conference was the growth in shellfish production over the last few years but it is not all about volumes of product. As Nick was saying, there has to be a good public perception of the product. An example of such public buy-in being that of

native oyster restoration giving a positive face for the industry. But it is not all in the hands of the growers, and there is a need for a level playing field. The “polluter pays” principle has been discussed for 40 years so is long overdue while there is also a clear need for long term support for research and some regulatory flexibility is called for. The processing industry has enabled growers to access supermarkets which continues to be a growth area which led Nick nicely to introduce the opening speaker, Stephen Cameron, former managing director of Scottish Shellfish Marketing Group (SSMG). Nick particularly welcomed Stephen’s oft asked question, “where’s the ambition?” for keeping things on track. Stephen’s initial remarks were lost as they made this scribe laugh too much to take notes.

Stephen was at pains to emphasise how things have changed so he was advising businesses to get back to basics and to understand the fixed costs, costs of loans etc and suggested that there needs to be partnership formed, collaborations or mergers. One of the great advantage the industry has is that shellfish are generally scoring well in relation to sustainability, the carbon footprint of shellfish production and in terms of the blue

Pictured right; former managing director of SSMG and far right, the current managing director of SSMG

Photo credit Craig Burton

Pictured below;

Students from the Erasmus Mundus Joint Master in Aquaculture, Environment and Society-STAR (ACES-STAR; www.emm-aces.org).

Photo credit JHBrown



ASSG conference cont.

economy/green economy and this was a theme repeated through the conference.

David Jarrad spoke of the All Party Parliamentary Group (APPG) which should help raise awareness of some of the problems besetting the shellfish industry but one can't help but worry that their activities more than somewhat overshadowed by the constant upheavals currently. Scotland currently has 4 members, so he recommended the audience to lobby their MPs to try to increase the number.

Tim Bean's talk was on the microbiome, very much an active area of study currently. Defined as 'a characteristic but dynamic microbial community



occupying a reasonably well-defined habitat which has distinct physio-chemical properties.' Tim called his talk, "Considering the microbiome, friend or foe?" This is an immensely complex topic, but the tenor of the talk suggested sympatric species less

likely to cause infection which accords with our own experience that it is mainly with travel that disease spreads, as much in shellfish as in humans. We learnt from work on the Sydney rock oyster that microbiomes are both passed down vertically and horizontally (from the environment) but that there is a core microbiome throughout life. A similar study is now being carried out on the native oyster in Loch Ryan. Some serious questions were raised by this talk. It highlights that moving shellfish is inherently risky but might a better understanding of the role of the microbiome help alleviate such risks? Also, there is a question of *Vibrio*, a ubiquitous genus and one closely associated with oyster mortality. He drew attention to the situation in the USA, with their *Vibrio* Control Strategy and he suggests prevention better than cure, or rather, being prepared for potential problems. All the presentations are available on the ASSG website. Tim has been very generous, providing in addition to his slides also useful and accessible references for anyone wanting to get fuller information on this topic.

In a masterful stroke of programme planning the talk that highlighted the value and importance of research



was followed by one on research funding for agriculture and one aimed at solving problems. Martin Sutcliffe of Ciel (pictured left) explained how their organisation operated, 'driving innovation in agri-food.

Eleanor Adamson of Fishmongers' Company Trust reported on a range of initiatives launched at the end of 2019 aimed at "encouraging healthy new consumers,". She spoke of a variety of projects and it is worth following up on the ASSG website where all the presentations can be found.

Rob Mitchell, the new managing director at SSMG then spoke of having worked with Stephen Cameron for 14 years at SSMG he drew an analogy to his likeness to King Charles III, being exceptionally well prepared for his new role. He spoke of The Crown Estate, Scotland supported initiative on promoting the Scottish shellfish cultivation industry. We will hear a lot more about this initiative once it is underway.

On the second day Tim Regan, addressed the mussel health situation. His area of expertise is immunology. The main goal of his work is to support shellfish farmers across Scotland. Questions his work will address circle around how does the mussel immune system work. How is this affected by hybridization between the three species that can be found in the UK? A complex talk but there are worrying signs of reduction in mussel recruitment and we can be thankful that there is this



cavalry arriving to study the situation. Tim Regan has promised an article for future issues of The Grower to give us a better understanding of the situation.

Andy Turner of CEFAS (pictured left) gave a talk on the current situation for rapid testing for shellfish biotoxins which gave me a *déjà vu* moment when I

recalled the time some 9 or so years ago where The Grower carried adverts for no less than 3 suppliers of rapid testing kits. There seems to be a complex situation wherein a problem that had appeared to be solved by the availability of effective commercial products is suddenly no longer "solved" when their products are taken off the market. It is however made more complex by factors such as the price of test substances becoming far more costly, e.g. 5mg of Domoic acid costs £20,000.

Carmel McDougall gave a wide ranging talk on the



Australian shellfish aquaculture situation, a slight alteration being made in the programme as she had had to travel to Australia at short notice so her talk was moved from the Tuesday afternoon to the Wednesday morning.

ASSG conference cont.

It's always good to end a conference on a positive note and the same masterly planning seen earlier was in evidence now. The closing talk from Heather Moore of AFBI (pictured right) did not disappoint. She was very positive about the value of shellfish aquaculture sites as environmental sentinels and gateways of discovery. Use current technology to monitor sites easily and build data gathering. She spoke of using the farmers' expertise to help in research both in aquaculture but also on a wider reaching scale. There is potential use for shellfish for bioremediation that we have not fully realised yet. At AFBI they are all set to deal with the problem of eutrophication of coastal water bodies. How much nitrogen and other nutrients can bivalves remove from their environment? What would the economic value of the improvement in water quality be with growing mussels oysters and clams? A start has already been made on this - the value of UK marine ecosystem services and societal benefits have already been valued at £211 billion

www.ons.gov.uk/economy/environmentalaccounts/bulletins/marineaccountsnaturalcapitaluk/2021



All presentations are on the ASSG website
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NORA 5, meeting in person once again

Janet H Brown

NORA 5 was another very special occasion to meet up with native oyster aficionados from all over the world but this time in person. Both NORA 3 and NORA 4 had been online meetings. Even though NORA 4 gave us the last word in online interaction technology there was just little opportunity for the chance encounter that enriches our knowledge and lives at in-person meetings. But even with online meetings one can leave realising one hasn't spoken to everyone one wanted to.

There was an excellent programme of talks and some surprises, but the real pleasure is in seeing the extent of work going on in the field of native oyster restoration. Some, not all, presentations can now be seen at the NORA website and the website itself is a fund of knowledge for anyone new to an interest in the field. noraeurope.eu/

There were a few specific items I wanted to follow-up on at this conference. One of these should feature in the next issue of The Grower. The other, my main aim was to follow up on the talk given at NORA 4 by Oscar Bos as reported in The Grower, January 2022. He was reporting on the ECOFRIEND project led by Pauline Kammermans. In this talk there was an implication that there were more

larvae found than could be accounted for by the number of oysters put out. I wanted to find out more on this. The project however is now finished. Pauline Kammermans clarified that while it did seem that the levels of oyster larvae were too high between the Borkum Reef and the Gemini wind farm this could potentially be accounted for by the German project set up later. They then realised that in fact these high levels had actually been found before the German project had put out their oysters, so it remains a curiosity. Pauline added that they find a lot of oysters on shipwrecks so it is possible these could be the source of the larvae. It is certainly the oysters that are being re-established at depth that have the greatest potential to provide long term restoration.

One thing that may be of great help in this work could be the work of Stephan Rutten and the robot he has developed, "The Lobster Scout" or just "the Scout" for helping in the survey work that is an essential part of any restoration project. Photographs such as these below must be of huge help in monitoring progress. The company he has set up is called "Lobster



Above; photos taken by Renate Olie from De Rijke Noordzee during their field trials in the North Sea with "the Lobster Scout".

Left; The oyster reef picture left is actually a small piece of what they mapped together with Oscar Bos at Brouwersdam (the North Seas largest wild oyster reef).

NORA 5 cont.

Robotics” and readers can find more information at their website www.lobster-robotics.com and get in contact if they wish. It is well worth the time.

The conference location was a luxury hotel in what seemed like the middle of nowhere. But the location had been carefully chosen by Hein Sas to provide a useful locality close enough to the sites for field visits already long planned. The field trip was to three sites; to the Roem van Yerseke shellfish hatchery, to De Oesterij, a tour of the shellfish culture heritage exhibition and oyster tasting in Yerseke and to Wageningen Marine Research for a demonstration of experiments related to oyster reef restoration.

Unfortunately I was not able to include the site visits due to train timetable requirements, but for some 15 or so conference attendees this train journey was not without its own excitement. The first train terminated at Dordrecht with no information given out. A later train then provided the opportunity to get our blood moving again as we were forced to literally sprint from one end of the platform to the other to catch a further relief train. Many thanks to the gallant Oliver Tully for taking my suitcase for me! I would not otherwise have made the connection with the onward train from Rotterdam to London.

I asked Stéphane Pouvreau if he could send me a photo of an oyster reef. He sent a selection so I will share them here. His current research project is REEFOREST. What can that be an acronym for? Well, the answer is

REstoring the **E**uropean **F**lat **O**yster **R**eefs and their **E**cosystem **S**ervices on the French coas**T**

Brilliant! And so are the photographs.



Nora 5 - with a Hugh-Jones camera



Aquaculture for a thriving future

Biodiversity, innovation, and the economic sustainability in the UK

Janet H Brown reports on conference at Fishmongers' Hall

It seems at times that we are preaching to the choir. We know about ecosystem services provided by shellfish culture, the advantages of eating low in the food chain, the nutritional value of marine products but the progress in reaching out with our shellfish world is slow. Is the missing link “political advocacy”? In a wide ranging, but strictly time-limited address the opening speaker, Stefán Jón Hafstein, certainly made a very strong argument that this was the case.



Pictured above; Stefán Jón Hafstein chats with Sara Mynott of Mindfully Wired Communications Photo credit JHBrown

He also argued that it was not an illusion that things were moving only very slowly when he pointed out that of the 17 sustainable development goals, Goal 14, “Life under water” is the least well-funded. He said it is no longer okay to go to a climate conference such as COP 28 and only think in terms of global warming; there are the economics of biodiversity and food systems to be included plus much more, not least how climate change is impacting on food production. He suggested we listen for what is actually said on blue foods at COP 28. Stefán works to promote such awareness through the Aquatic Food Coalition and invited the UK to join this - www.unfoodsystemshub.org/food-systems-coalitions/aquatic-blue-food-coalition/en.

He highlighted the issues and got the conference off to a great start.

The aim of the conference was to enable professionals, policymakers, government, researchers, aqua farmers and industry experts to get together to discuss and strategise how to accelerate low-trophic aquaculture in the UK. This is a priority in the UK Multi Annual National Plan, and the English Aquaculture Strategy, yet major funding institutions have yet to gain sufficient confidence to provide finance for future projects. It covered a whole panoply of skills and topics under different session headings, the UK Aquaculture Vision, Marine Policy, Ecological enhancement and environmental gain, (regenerative aquaculture), market innovation, and a section Frontier thinking plus panel discussions. Sometimes the throw away lines said most, such as John Holmyard pointing out that his long fought-for relatively small area of sea bed was producing a tonnage of mussels which compared very positively with the harvest of the fishermen of Brixham over a significantly larger area. And the audience had already heard of the regenerative aspects of Offshore Shellfish from Emma Sheehan’s talk earlier. (Also see youtu.be/blWoA1CWs-Q)

The day certainly achieved its stated aim. More information on the aims of the meeting and the speakers can be found at

fishmongers.org.uk/fish-fisheries/aquaculture-for-a-thriving-future/



From left to right; Melanie Siggs, who chaired the panel discussion that completed the programme, Anton Immink who spoke on “Can payments for ecosystem services encourage shellfish industry growth?”, Tim Regan, Mairi Cowan, Janet Brown, Owain Wynn-Jones, Konstancja Wozniacka, and Heather Moore.

The last 2 photographs could have been taken at the ASSG conference but then the sofa would not be so commodious nor the wine served in such elegant flutes.

Photo credit JH Brown and for photo above Jose Tio



Behind the scenes

Shellfish Culture



It's always good to tiptoe to the kitchen in the Corran Halls to see the hard work that goes in to just preparing the shellfish for display in the best Scottish shellfish competition, of the gratitude to the judges. And friendly rivalry!

This is the 30 cms plate that Richard Bramble was inspired to make seeing the oyster prizes as described on the front page. Available with significant 15% discount with the correct code.



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Photo news

Presentation to RNLI



Pictured above; Nick Lake presents a cheque for £700 raised through a raffle of contributions donated from the conference attendees to the coxswain and representative from the Oban RNLI station.

Photo credit Craig Burton

Old friends, new roles



It was lovely to see Sarah Evans (*above right*) still in the fold of shellfish aquaculture but now working under a different flag. Sarah, after around 6 years with SSMG as their Environment and Sustainability Manager, now works for the Marine Conservation Society. If anything speaks to the correlation between shellfish farming and the benefits to the marine environment from the activity it must be this appointment. Sarah will be working with Dawn Purchase (*pictured above left*) on aquaculture policy in Scotland as well as regulatory development within the rest of the UK. Sarah's work will include leading on aquaculture policy for Scottish Environment LINK Marine Group with a focus on achieving ecosystem-based aquaculture within a spatial planning framework and implementation of Scottish Government's Vision for Sustainable Aquaculture.



Judging the best Scottish shellfish

The competition does depend on the hard work of the judges. Seen here from left the judges this year, David Jarrad (SAGB), Eleanor Adamson (Fishmongers' Company), Nicki Holmyard (Offshore Shellfish) and Linda Wood (M&S). Not an easy job but we appreciate your time and effort.

Photo credit Craig Burton