

# Sea Scotland Conference 2016

## Draft Programme

Day 1, 15<sup>th</sup> June 2016

*Vision for the sustainable development of Scotland's seas*

Session	Speaker	Timing
<i>Registration (coffee/tea)</i>	-	13:30
<b>Welcome and opening remarks</b>	<b>Chair (Tim Stojanovic, University of St Andrews)</b>	14:00
Keynote talk (followed by 5-10 mins questions) <i>Blue Sea Thinking: The creative challenge of marine spatial planning</i>	Charles Ehler (Ocean Visions Consulting)	14:10
The Scottish Vision for Our Seas	Colin Moffat (Marine Scotland Science)	14:40
An NGO perspective on Scottish marine planning	Joyce McMillan (Honorary President, Scottish Environment LINK)	14:55
A Crown Estate perspective on Scottish marine planning for business	Alex Adrian (The Crown Estate)	15:10
A community perspective on Scottish marine planning	Hannah Grist (SAMS)	15:25
<b>Panel discussion</b>	<b>All; Chair (Tim Stojanovic, University of St Andrews)</b>	15:40
<i>Break (coffee/tea)</i>	-	16:00
Question Time: "How Good Is Good?" <i>Interactive debate-style session led by a panel of marine experts from different fields</i>	<b>Chair: Dave Paterson, Executive Director, MASTS</b> Panel members: Alec Taylor (WWF-UK), Cathy Tilbrook (SNH), Tavis Potts (University of Aberdeen), Simon Collins (Shetland Fishermen's Association), Nick James (LUC)	16:30
<b>Closing remarks</b>	<b>Chair (Dave Paterson, Executive Director, MASTS)</b>	18:00 - 18:10
<i>Wine reception/networking, exhibition and tour of the RRS Discovery</i>	-	18:30
<i>Conference dinner and speech</i>	-	20:00

Day 2, 16<sup>th</sup> June 2016

*Marine Planning in Practice*

Session	Speaker	Timing
<i>Arrival (coffee/tea)</i>	-	08:45
<b>Opening remarks, review of previous day</b>	<b>Chair (Greg Lloyd, Emeritus Professor, Ulster University)</b>	09:15
Keynote talk (followed by 5-10 mins questions) <i>Blue Economy blues: do we really know what we want?</i>	Jeff Ardron (Ocean Governance, Commonwealth Secretariat)	09:20
Evaluating Marine Governance: criteria for reviewing Marine Planning in Scotland	Tim Stojanovic (St. Andrews University)	09:50
Presenting Information and Data for marine planning – Marine Scotland's NMPI	Martyn Cox (Marine Scotland)	10:05

Regional Marine Planning in Scotland – the applied story so far	Shona Turnbull (Highland Council), Fiona Mills (Clyde Marine Planning Partnership) and Rachel Shucksmith (NAFC, Shetland)	10:20
Panel discussion	All; Chair (Greg Lloyd, Emeritus Professor, Ulster University)	10:35
Introduction to workshops	Chair (Greg Lloyd, Emeritus Professor, Ulster University)	10:55
Break (coffee/tea) <i>NMPi live demonstrations available during this period</i>	-	11:00
Break out groups/workshop sessions	-	11:25
Seafloor integrity – are we fishing our seabed beyond environmental limits?	David Bailey and Charlotte Hopkins (University of Glasgow)	
Future Trends	Sam Tedcastle (Celtic Seas Partnership)	
Engaging with the general public – when, how and why	Deborah Peel (University of Dundee)	
National Coastal Change Assessment and marine planning	Alistair Rennie (SNH)	
Lunch <i>NMPi live demonstrations available during this period</i>	-	13:00
Workshop Plenary	All	14:00
Current research - Student 10-min flash talks (10 min Q's at end)	Chair (Anna Donald, Head of Planning Branch, Marine Scotland) 1. Stephanie Weir: <i>Divisions in the water: The changing property regimes at sea</i> 2. Rhys Howell: <i>Whose islands, whose future? Interpreting community and planning in the Western Isles</i> 3. Marwin Buresch: <i>Knowledge gaps between value-based and evidence-based approaches for the proposed D&amp;R MPA around Fair Isle, Shetland</i>	14:10
The Ecosystem Approach and tools for marine planning	Chris Leakey (SNH)	14:50
Recognising community voices in marine management	Jasper Kenter (SAMS)	15:05
Scottish Marine Tourism and Recreation Survey	Sarah Brown (Clyde Marine Planning Partnership)	15:20
Panel discussion	All	15:35
Closing remarks	Chair (Anna Donald, Head of Planning Branch, Marine Scotland)	15:50 – 16:00

# Sessions and Abstracts

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Day 1, 15<sup>th</sup> June 2016

VISION FOR THE SUSTAINABLE DEVELOPMENT OF SCOTLAND'S SEAS

Session Chair: Tim Stojanovic (University of St Andrews)



*Tim is a Lecturer in Geography and Sustainable Development at the University of St Andrews, where he leads the marine and coastal environment team in active research projects sponsored by NERC, ESRC, Carnegie Trust and Scottish Government. His key research interests relate to the challenges of governance, planning and management in coasts and oceans. He is also interested in how the social and cultural evidence base can be developed for marine planning. As part of this approach, he regularly aims to work in interdisciplinary teams, involving scientists and practitioners, working towards the goal of sustainability for the blue planet. He is Chair of the UK Royal Geographical Society Coastal and Marine Research Group, and on the steering committee of the Tay Estuary Forum. <http://www.st-andrews.ac.uk/~tas21/>*

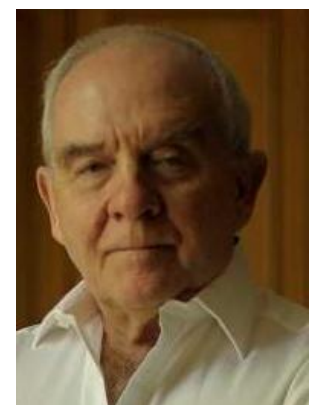
## Keynote talk

*Blue Sea Thinking: The creative challenge of marine spatial planning*

Charles Ehler (Ocean Visions Consulting)

While I have often talked about the need for more information, more evidence, more science, more rigor in marine spatial planning (MSP), today I will talk about the creative, inventive “blue water thinking” needed to make MSP more effective over time. The focus will be on strategic thinking or “inventing the future”. After all, planning is a future-oriented activity that goes beyond simply documenting where we are today—and recognising that we can only change the future. So I’ll talk about creating a “vision”, or more exactly creating a “spatial vision” through the development of “spatial scenarios” for marine regions—and how to translate a desired spatial vision into a management plan that will get us to where we want to be, not only where we are now. Along the way I’ll talk about the importance of a commitment to a continuing planning process, the need for SMART-er objectives, the effective engagement of stakeholders throughout the MSP process, and the importance of evaluating “success”.

*Charles Norman Ehler lives and works in Paris, France, as a consultant to international organizations, national governments, and non-governmental organizations on marine spatial planning and integrated coastal management. Before moving to Paris in 2005, he worked for 27 years for the US National Oceanic and Atmospheric Administration (NOAA) and for five years for the US Environmental Protection Agency in Washington, DC. He was the Marine Vice-Chair of IUCN’s World Commission on Protected Areas from 2000-2005. He previously taught regional planning and natural resources management at the University of Michigan, the University of California, Los Angeles (UCLA), and the State University of New York at Stony Brook. In 2007 the Intergovernmental Panel on Climate Change (IPCC) recognized the contribution of his early work on coastal adaptation*



*to the award of the Nobel Prize to the IPCC. He is the author of over 100 publications on integrated coastal management and marine spatial planning, including UNESCO guides to marine spatial planning (2009) and evaluating marine spatial plans (2014). He has lectured extensively throughout the world on marine spatial planning.*

### *The Scottish Vision for Our Seas*

Colin Moffat (Marine Scotland Science)

The seas around Scotland have a huge influence on both coastal communities and the country more widely. They influence our climate, provide us with nutritious food and give considerably enjoyment to tourists and locals alike. Scotland has a vision that our seas will be clean, healthy, safe and biologically diverse, managed to meet the long term needs of people and nature. We can only manage human activities, not the actual environment. This means that there is a need to understand the individual and cumulative human pressures on marine ecosystems and how such pressures can be mitigated. The National Marine Plan outlines the processes, in some cases on an industry-specific basis. A primary tool is marine spatial planning, including the application of marine protected areas. Regardless of the tool, there is a need to assess the success of any management action and also whether or not the interventions will ensure that Scotland meets the requirements of the various European Commission Directives, including the Marine Strategy Framework Directive. This, in itself, has required the development of new indicators across the eleven descriptors of good environmental status (GES), indicators which must be relevant at the scale of the Greater North Sea or the Celtic Seas, a requirement that is being coordinated through the OSPAR Commission. Reporting on progress is fundamental with the Intermediate Assessment 2017 being the first of a series of assessments that will be produced over the next 5 years. There is undoubted progress, but there remain significant challenges which will be discussed in detail together with some ideas as to how these challenges can be tackled.



*Colin was appointed as Head of Science for Marine Scotland in April 2011. He has held the Honorary position of Professor of Analytical and Environmental Chemistry at the Robert Gordon University in Aberdeen since 2005 and is also an Honorary Lecturer in the School of Biological Sciences at the University of Aberdeen.*

*Initially studying chemistry, Colin completed a PhD in heparin biochemistry, including links to tumour angiogenesis, before joining the MAFF Torry Research Station where he investigated the structure of fish lipids and their nutritional benefits, ultimately becoming Head of Lipids and Nutrition at the renamed, Food Science Laboratory Torry. He went on to investigate contaminants in fish, farm animals and food products, partly as a result of being involved in the response to the grounding of the MV Braer in 1993 on the south coast of Shetland and the Sea Empress oil spill in 1996. Both these incidents involved the use of chemical and sensory assessment. Colin moved to the Marine Laboratory where he investigated the concentrations and biological effects of contaminants on marine animals, including those arising from oil spill incidents.*

*Over the last 12 years, Colin has maintained a strong scientific interest, both in ecotoxicology and the use of fatty acids to assess the trophic structure of marine animals. He has also taken on an increasing advisory role, specialising in assessment methodology, including in response to both chronic and acute pollution, using chemical and sensory assessment. Between 2005 and 2010 Colin*

*lead the process to produce a decadal assessment of the status of the North-East Atlantic. Closer to home, Colin played a fundamental role in an assessment of UK seas (Charting Progress 2) and in the production of Scotland's Marine Atlas which was published in 2011. Colin is currently leading on the production of an assessment of the North-East Atlantic in 2017; this assessment utilises the new indicators and targets developed under the Marine Strategy Framework Directive and will provide information in respect of progress with respect to achieving Good Environmental Status.*

#### *An NGO perspective on Scottish marine planning*

Joyce McMillan (Scottish Environment LINK)



*Joyce McMillan is theatre critic of The Scotsman, and also writes a political and social commentary column for the paper. She has been involved in many campaigns for democracy and human rights, both in Scotland and internationally, and has been a freelance journalist, based in Edinburgh, Scotland, for more than 25 years. She was a Visiting Professor in the School of Drama and Creative Industries at Queen Margaret University, Edinburgh from 2006 to 2010. Joyce has an active interest in environmental and sustainability issues and in November 2015 she became the Honorary President of Scottish*

*Environment LINK, the forum for environmental charities in Scotland.*

#### *A Crown Estate perspective on Scottish marine planning for business*

Alex Adrian (The Crown Estate)

Marine planning must account for the particular circumstances and requirements businesses face if it is to enable sustainable development and productive use of a shared resource. These circumstances and requirements will be discussed in the context of Scotland's aquaculture sector as an example of an important Scottish marine industry that has developed alongside the evolution of marine planning.

*Alex is the Aquaculture Operations Manager at The Crown Estate, having joined the organisation in January 2007, prior to which he spent near on 20 years in the Scottish salmon farming industry working in a variety of roles including site development, technical services, product quality, processing and regulatory and stakeholder relations. In addition to management and administration of The Crown Estate's aquaculture interests around the UK, he also works closely with colleagues on assessment of aquaculture research proposals, both co-funded external projects and The Crown Estate's own such as studies into commercial seaweed cultivation and industry carbon footprint assessment, and represents The Crown Estate on a range of government and industry forums. Alex is based at The Crown Estate's Edinburgh office although still lives in 'industry territory' on the west coast of Scotland.*



#### *A community perspective on Scottish marine planning*

Hannah Grist (Scottish Association for Marine Science)

I currently coordinate part of a Heritage Lottery Funded project called Capturing our Coast in Scotland. Capturing our Coast is a national marine citizen science project that aims to work with volunteers to engage communities with their local coastline, and provide a robust scientific dataset for research and potential conservation purposes. In this presentation, I will discuss the importance

and challenges of engaging with communities as part of marine planning, and different approaches to achieving specific aims.



*Hannah is a postdoctoral researcher at the Scottish Association for Marine Science in Oban, working on citizen science and large-scale patterns in intertidal ecology. Her main interests are in behavioural and population ecology in the marine environment, particularly how small-scale variation scales up to the population level, and the implications for conservation and management. She completed her undergraduate degree at University of Oxford, and her PhD at the University of Aberdeen on the migration ecology of European shags. Prior to joining SAMS, she was part of the education team for the*

*RSPB in Glasgow, working with schools, universities and communities to enable outdoor learning.*

## Question Time

### *'How Good is Good?'*

(Based on Mee *et al.* 2008: Mee, L. D., Jefferson, R. L., Laffoley, D. D. A., & Elliott, M. (2008). How good is good? Human values and Europe's proposed Marine Strategy Directive. *Marine pollution bulletin*, 56(2), 187-204.)

Session Chair: David Paterson (Executive Director of the Marine Alliance of Science and Technology Scotland – MASTS)

*Professor David M. Paterson FMBA holds a personal chair in Coastal Ecology at the University of St Andrews, is Executive Director of the Marine Alliance for Science and Technology for Scotland (MASTS). He also Chairs the Sullom Voe Oil Terminal Environmental Advisory Group. He has 25 years of experience in research on marine systems and held a Royal Society University Research Fellowship at Bristol before moving to St Andrews. There he established the Sediment Ecology Research Group (SERG) and continued his work on the dynamics and ecology of intertidal and coastal systems. SERG now has an international reputation for innovation and scholarship in marine science and strong national and international funding. Professor Paterson has led a number of successful interdisciplinary projects (EU and National)*



*and was a theme leader in the EU MARBEF network of excellence. He has over 150 peer-reviewed publications, has edited four books and successfully supervise >25 doctoral candidates. Recent research involves biodiversity, ecosystem function and ecosystem service relationships, and global change biology particularly the effects multiple stressors (ocean acidification, temperature and hypoxia). He currently leads the NERC CBESS (Coastal Biodiversity and Ecosystem Service Sustainability) consortium and is a member of Marine Scotland's Science Advisory Board.*

### Background:

The Council of the EU (2006) defined Good Environmental Status as *seas and oceans are ecologically diverse and dynamic, clean, healthy and productive, their use is at a sustainable level, safeguarding the potential for uses and activities by current and future generations.* Nested within the EU and UK legislative frameworks for marine protection, Scotland is an historic stage where the unprecedented amount of regulation and conservation measures that have been introduced must be implemented well in order to halt and reverse the ecological decline of recent years. In this debate we consider

whether marine planning will be enough for Scotland to protect and recover its seas to the necessary level.

This is an interactive debate-style session led by a panel of marine experts from different fields discussing the suggested principle that marine spatial planning is the vehicle to form and deliver our collective vision for the sea. In this session, each panellist will give a short introductory talk setting out their perspective on this principle and address the following three questions, on which delegates can vote via the conference app:

1. *Is the health of our marine area good enough?*
2. *Could Marine Spatial Planning support sustainable development?*
3. *Will Marine Spatial Planning increase the benefits for society from Scotland's marine resources?*

There will then be an opportunity for full audience participation in the discussion, during which delegates can ask questions and offer their own perspective on the subject. The session will end with closing statements from the panellists and a second audience vote on the panellists' initial questions.

*In memory of Professor Lawrence Mee (1951-2014), Director of the Scottish Association of Marine Science.*

### Panellists

Alec Taylor (WWF UK)



*Alec is Marine Governance Programme Manager at WWF-UK, currently on secondment from a similar role at the RSPB. He is responsible for WWF's strategic engagement in marine planning, including attendance at the European Commission's Member State Expert Group on MSP and member of the national Stakeholder Focus Group on marine planning for the Marine Management Organisation (MMO) in England. Once upon a time, he wrote his dissertation on what skills a 'marine planner' would need, around the time the Marine and Coastal Access Act was being drafted. He is based at WWF's UK headquarters in Woking.*

Cathy Tilbrook (Scottish Natural Heritage)

*Cathy Tilbrook is joint head of the Coastal & Marine Ecosystems Unit in Scottish Natural Heritage, managing a team of 30 staff working on marine nature conservation and sustainable use of our seas. Cathy has worked for SNH for over 20 years, with a focus on coastal and marine work for most of that period. Working closely with a range of marine colleagues, she helped to draft the first strategy for Scotland's coastal waters and provided input to European working groups that developed the Marine Strategy Framework Directive. Cathy has been a strong advocate of marine planning for many years and is particularly keen to ensure that Scotland develops a robust and visionary set of regional marine plans which can steer activities to suitable locations; allow marine habitats and species to thrive; and engage coastal communities and stakeholders in decisions on managing our seas.*



Simon Collins (Shetland Fishermen's Association)



*Born in Britain but raised in Southeast Asia and Africa, Simon has dual UK-French nationality and worked for many years in banking and finance before his involvement with Shetland's fisheries. A graduate of Oxford University (philosophy, politics and economics) and City University, London (law), he was a derivatives specialist at Bank of America, Lehman Brothers and Industrial Bank of Japan in London before setting up his own business in France. Now 51, married and with three children, he opted for a new challenge by joining the Shetland Fishermen's Association at the beginning of 2013. A long-time resident of the French Alps, his books 'Morts naturelles' (2005) and 'On ne peut pas prier pour la pluie et se plaindre quand on est mouillé' (2011) both focus on the complex relationship between people and their natural environment.*

Tavis Potts (University of Aberdeen)

*Dr Potts is a Senior Lecturer in Human Geography at the University of Aberdeen and Program Director of the MSc in Environmental Partnership Management. His research interest spans the critical examination of the social and political dimensions of environmental governance, the emergence and implications of new governance ideologies and advances in the management of natural resources. Dr Potts focus is on coastal and marine systems, including the process and effectiveness of marine spatial planning and coastal zone management; the practice of stakeholder engagement; ecosystem services and decision making; eco-labelling in fisheries and aquaculture; marine protected areas governance and the 'blue' economy in theory and practice. Geographically Dr Potts has long term research interests in the north east Atlantic (UK, Scotland, Barents Sea); Australia; Canada; and Asia (China, East Asian Seas).*



Nick James (LUC)



*Nick James is a Director of LUC and an experienced environmental planner. Nick led LUC's recent work on the 2015 Scottish Marine Recreation and Tourism Survey (for Marine Scotland), a project that provides new insights into the way people use the Scottish coastline and seas for recreation. His other work has included a recent coastal character assessment of the Orkney and North Caithness coastline and a series of 'climate conversations' with coastal communities around Scotland – exploring the effects of climate change and local opportunities to adapt and mitigate. He led LUC's landscape character assessment of the Tay Landscape Partnership project area and has helped shape the way we assess effects of changes such as wind farm development, settlement expansion and mineral working on the landscape. Nick's work on designated landscapes includes assessments of the Loch Tummel and Knapdale National Scenic Areas, and the Hadrian's Wall, Stonehenge and Antonine Wall World Heritage Sites. Nick is a keen sea kayaker and frequent visitor to the Scottish coast.*

## MARINE PLANNING IN PRACTICE

Day 2, 16<sup>th</sup> June 2016

Session Chair: Greg Lloyd (Professor Emeritus, Ulster University)



*Greg Lloyd is Professor Emeritus of Urban Planning at the University of Ulster and a Visiting Professor in the Land Use Planning Group, University of Wageningen. He was Head of the School of the Built Environment at the University of Ulster, 2008 – 2012. Prior to this, he worked at the Universities of Liverpool (Civic Design - 2006-2008), Dundee (Town & Regional Planning - 1994-2006) and Aberdeen (Land Economy - 1978-1994). He is a Fellow of the Academy of Social Sciences. He was Ministerial Adviser to the Northern Ireland Assembly Government on its reform of land use planning and Chair of the Northern Ireland Land Matters Task Force. He has researched and published widely in the fields of strategic land use planning, regeneration and development.*

## Keynote Talk

*Blue Economy blues: do we really know what we want?*

Jeff Ardron (Commonwealth Secretariat)

*"When I use a word," Humpty Dumpty said in rather a scornful tone, "it means just what I choose it to mean — neither more nor less."* (Lewis Carroll, *Through the Looking-Glass, and What Alice Found There*).

Depending your age, you may remember one, two, or all of the following: "coastal zone management", or "integrated management" or "marine ecosystem-based management", or gasp, "marine spatial planning". And now, it is all about the "Blue Economy" and its variant the "Ocean Economy".

To what advantage is this Humpty Dumpty naming, re-naming, and re-defining of marine planning terminology? What salty Shangri-La do we seek? What do we really want to find there?



*Jeff Ardron is an Adviser on Marine Governance at the Commonwealth Secretariat, London, which provides technical assistance to developing states. He has over 25 years' experience in marine governance, planning, and conservation. He maintains his involvement in British Columbia, Canada (where he is from) as President of the Board for the Pacific Marine Analysis and Research Association (PacMARA), an organization he co-founded, that provides technical training and workshops internationally on marine planning and related software. He has also been a co-founder / pioneer member of several other organisations, boards and committees. He is currently active in the Global Ocean Biodiversity Initiative (GOBI) and the Deep Ocean Stewardship Initiative (DOSI). He is a frequent guest lecturer, and has consulted widely. He holds an MSc in Environment and Management, from Royal Roads University, Canada, and is currently engaged in part-time PhD studies at Southampton University, UK. With a focus on deep sea mining, his current research is concerning what constitutes good resource governance. His maritime experience started locally, living in a small fishing village, later moving to the regional conservation sector, then national-level government and finally working within international conventions, before returning to State-level implementation.*

*Evaluating Marine Governance: criteria for reviewing Marine Planning in Scotland*

Tim Stojanovic (University of St Andrews)

This paper traces an historical overview of the development of marine planning in Scotland from the 1990s to present, with the aim of explaining how different interest groups have coalesced around this idea. Four key phases are highlighted. The second part of the paper reviews the relative strengths and weakness of different scholarly frameworks for evaluating progress in marine planning, such as: Ecosystem-based management; Good Governance, and Governance Indicators. Examples are provided of how these frameworks have been applied to marine planning in different parts of the world, and how lessons can be drawn from other fields. The paper concludes further critical reflection is required to review whether we are heading in the right direction with marine planning. This reflection on appropriate evaluatory criteria needs to be up front in the design of marine planning systems, so that evidence is available at the review phase, in order to achieve the ambitious goals of collaborative and adaptive governance for the oceans.

*Tim is a Lecturer in Geography and Sustainable Development at the University of St Andrews, where he leads the marine and coastal environment team in active research projects sponsored by NERC, ESRC, Carnegie Trust and Scottish Government. His key research interests relate to the challenges of governance, planning and management in coasts and oceans. He is also interested in how the social and cultural evidence base can be developed for marine planning. As part of this approach, he regularly aims to work in interdisciplinary teams, involving scientists and practitioners, working towards the goal of sustainability for the blue planet. He is Chair of the UK Royal Geographical Society Coastal and Marine Research Group, and on the steering committee of the Tay Estuary Forum. <http://www.st-andrews.ac.uk/~tas21/>*



#### *Presenting Information and Data for marine planning – Marine Scotland's NMPI*

Martyn Cox (Marine Scotland)

Marine Scotland, with its partners SEPA, SNH, JNCC and MASTS prepared Scotland's Marine Atlas (2011) as 'Information for the National Marine Plan'. The hard copy was well received. Since then the partnership has overseen the development of National Marine Plan interactive (NMPI), a web based GIS, available to all, that allows data and information to be seen and multilayer maps created. As a spatial mapping tool NMPI is key to assist with both national and regional level marine planning. The talk will give an overview of NMPI in terms of content and functionality to encourage marine stakeholders as to its overall utility as a spatial data platform. There will be a live demonstration during breaks.

Martyn Cox has worked for Marine Scotland since it was formed (in 2009) and manages the National Marine Plan interactive portal. He has worked in the marine environment since he left school.

#### *Regional Marine Planning in Scotland – the applied story so far*

Shona Turnbull (Highland Council), Fiona Mills (Clyde Marine Planning Partnership) and Rachel Shucksmith (NAFC, Shetland)

Regional Marine Planning in Scotland has evolved from pre-legislation projects, including in Shetland and the Clyde, between 2006-2010. The Marine (Scotland) Act 2010 then formalised the process and led to the publication of the National Marine Plan in 2015. Alongside this, the process of

preparing regional marine plans was piloted by the PFOW process, resulting in the final plan in 2016. This overlapped the continued development of the Shetland marine plan; the 4th edition was published in 2015, whilst the Clyde Marine Planning Partnership is currently determining its governance arrangements. Each of these projects had identified a number of common and unique issues and themes. Three of these, the Lessons Learned, Engagement and Ecosystem Services will be briefly outlined.



Shona Turnbull (Highland Council)

*Shona is currently working on marine policy and related planning applications. Specifically, she had just completed the pilot marine spatial plan for the Pentland Firth & Orkney Waters, in collaboration with Marine Scotland and Orkney Islands Council. She also prepared the 'Lessons Learned' document to accompany the pilot marine plan. These aim to guide regional marine planning in Scotland and beyond by providing a useful framework and helpful tips to make the process easier. Previous academic research and private studies have focussed on marine biology, biodiversity and urban ecology. Elements of these have combined social and ecological science, sometimes with a focus on engaging people in their own beach, garden, park or allotment.*

Fiona Mills (Clyde Marine Planning Partnership)

*Following an MSc at Heriot Watt in Marine Resource Development and Protection, Fiona began working with the Firth of Clyde Forum in 2009. Along with general management of the Forum, Fiona has also delivered projects for the Forum Core Group on Biosecurity, Marine Litter, Landscape-Seascape and Sea Level Rise. Fiona has more recently overseen the introduction of a constitution for the newly-formed Clyde Marine Planning Partnership and is currently leading on work on the Assessment for the Clyde Marine Region.*



Rachel Shucksmith (NAFC Marine Centre, Shetland)



*Rachel has been leading the development of the Shetland Islands' Marine Spatial Plan as a statutory marine plan. The fourth edition of the Plan was published in 2014 and became supplementary guidance to the Shetland Islands Council Local Development Plan, integrating terrestrial and marine planning in the region. Shetland is now developing a 5<sup>th</sup> edition of the Plan under the Marine Scotland Act. Supporting research projects have included cumulative pressure mapping, biosecurity planning, fisheries mapping and cultural ecosystem services assessments.*

## Workshops

*Seafloor Integrity – are we fishing our seabed beyond its environmental limits?*

David Bailey and Charlotte Hopkins (University of Glasgow)

This workshop focuses on Descriptor 6 of the MSFD Seafloor Integrity and how this relates to overall Good Environmental Status under the MSFD. A short presentation will introduce the definitions and terminology behind the descriptor and outline progress towards understanding the Descriptor to date. A discussion session will allow participants to contribute their experiences of working on

Seafloor Integrity, their understanding of the MSFD and its requirements under this descriptor, challenges to determining GES, and possible solutions. Dr Bailey and Dr Hopkins will outline how their current work to understand the role of MPAs and the contribution of management measures in achieving seafloor integrity, is progressing.

#### *Future Trends*

Sam Tedcastle and Sarah Young (Celtic Seas Partnership)

Our seas are busy! Increasingly so, with wind farms, MPAs, fishing, tourism, shipping and a host of other industries all competing for space. During the workshop we will explore the consequences of three different growth scenarios: Business as Usual, Local Stewardship and Nature at Work. These scenarios were developed based on contrasting views of an ideal future, one adopting the blue growth approach (Nature at Work) and the other with stronger local influence on policy (Local Stewardship). In the workshop we will consider possible tensions and opportunities resulting under these different management approaches. The aim of the session is to open up dialogue between marine users about the future to tackle head on the dilemmas created by different needs and expectations.

#### *Engaging with the general public – when, how and why?*

Deborah Peel (University of Dundee)

This workshop will examine some of the practical, theoretical and ethical issues associated with engaging individuals, communities and different interest groups in coastal and marine planning and decision-making. It will provide an opportunity to explore some of the challenges and opportunities involved and review a number of information leaflets designed to improve engagement.



*Professor Deborah Peel holds an emeritus position at the University of Dundee and is a Visiting Professor at Wageningen University. Prior to becoming an academic, Deborah spent ten years working in local government in land use planning. Her research interests continue to focus on community engagement, particularly in relation to developing the synergies between terrestrial or spatial planning and community planning. Deborah recently co-led a project, funded by the Scottish Universities Insight Institute, dedicated to examining interdisciplinary knowledge exchange in the sphere of marine spatial planning. She is a Member of the Royal Town Planning Institute and a Patron of Planning Aid Scotland*

#### *National Coastal Change Assessment and marine planning*

Alistair Rennie (Scottish Natural Heritage)

The National Marine Plan and Scottish Planning Policy, along with other policy drivers, require consideration of coastal erosion and coastal flooding. Whilst the evidence base for flooding is provided by SEPA's Flood hazard maps, there has been no national information on the recent or anticipated extent and rate of coastal erosion. Our national mapping in many of our dynamic shores has not been updated in thirty or more years. The National Coastal Change Assessment (NCCA) was commissioned to fill this evidence gap, and aims to support strategic management of our coastal zone. The NCCA will be introduced and the webmaps shown to inform policy development,

particularly where coherence between terrestrial and marine policy is paramount. Delegates will not only get hands-on experience with the web maps, but will see how these can be used in inform actionable policies of the NMP, SPP and other policy areas.

*Dr Alistair Rennie works for the Scottish Government coordinating an inter-agency research programme into coastal erosion. This research aims to investigate past change and assess the likelihood of future change to better inform Government, Agency, Local Authority and wider partners' strategic planning. Information about the project can be found at [www.dynamiccoast.com](http://www.dynamiccoast.com). Before his placement, Alistair worked for Scottish Natural Heritage as their Coastal Geomorphologist. Within this role he commissioned research into coastal change, advised on planning applications (including two public inquiries) and provided policy advice. His research has investigated coastal changes over thousands of years in Orkney, and the last hundred years across the rest of Scotland. Recently he has supervised research into the inherent susceptibility of the coast to erosion, which now supports SEPA's Flood Hazard Maps. His ongoing research focusses on how 2D and 3D vulnerability assessments can inform mitigation and adaptation strategies. He also sits on the Advisory Group of Scotland's Coastal Heritage at Risk project ([www.SCHARP.co.uk](http://www.SCHARP.co.uk))*



Session Chair: Anna Donald (Head of Planning Branch, Marine Scotland)

Anna heads the Marine Planning and Strategy Branch within Marine Scotland, Scottish Government. The Branch deals with national and regional marine planning for Scottish waters and with the implementation of the Marine Strategy Framework Directive for Scotland. Anna has previously worked in Education and Housing within Scottish Government.



## Current Research – Student Flash Talks

*Divisions in the water: The changing property regimes at sea*

Stephanie Weir (PhD Candidate, Heriot-Watt University)

This short talk will elaborate on my future research into the changing property regimes and rights at sea. An examination of the trends in property regimes at sea is critical at a time when countries are looking towards the marine environment for continued economic development. The EU's Blue Growth agenda advocates rapid industrial development, using both new and traditional industries, which could cause tensions between economic development and environmental protection. Governance schemes such as Marine Spatial Planning, which seek to rectify such tension, additionally call for the enclosure of marine areas, and have the potential to create previously unprecedented private rights. I wish to initially explore the misconceptions of the sea as an un-ownable, unmarketable space; a conception that is perpetuated by the continued division of the land and the sea. In an attempt to overcome this land-sea divide, it is necessary to understand how discrete property regimes already exist within the ocean's space and its resources. It is additionally important to examine the potential effects of management schemes like MSP, which encourage the use of exclusive rights to spaces and resources. MSP can lead to the transformation of open-access

resources to private assets through the use of geographic boundaries and regulatory practices like ITQs. My work will hopefully entail the use of three to four major case studies, of which I will endeavour to give a brief overview, that demonstrate the consistently changing state of property rights at sea. My research could help indicate as to whether privatisation and enclosure, as encouraged by management schemes like MSP, are prerequisites for sustainable growth at sea.



I am a first year PhD student studying at ICIT, Heriot-Watt's Orkney Campus. My research focuses on the changing nature of property regimes at sea. I have a background in marine biology and environmental anthropology, and my current research aims to amalgamate both natural and social science methodologies to build an interdisciplinary understanding of maritime property affairs.

*Whose islands, whose future? Interpreting community and planning in the Western Isles*

Rhys Howell (PhD Candidate, University of Edinburgh)

In this flash talk, I will present some observations from a year spent on the Isle of Lewis exploring social responses to marine energy. The Western Isles have significant marine energy resources, and a number of projects have been proposed, though none are yet to be realised. This research allowed an in-depth exploration of the range of issues that inform social responses to these projects. The research illustrates the complex and longstanding relationships that island communities have with the marine environment, and with each other, and how this affects the way marine energy developments are perceived. Analysis of these relationships, and the unique social characteristics of the Island, further demonstrates the importance of community engagement in marine planning. There is both a strong desire for development, and a wish to preserve the Island's heritage. Current and historic community engagement practices have often been weak, leading to scepticism in the planning process. Approaches that appropriately understand and negotiate the range of issues that inform responses to marine energy and planning projects, are therefore required, in order to capitalise on the significant opportunities that exist in developing and protecting marine resources.

Rhys is currently undertaking a PhD in Sociology at the University of Edinburgh for which he is in receipt of a Principals Career Development Scholarship. His research is focussed on better understanding the social implications of marine energy developments. In addition to his research Rhys is employed in teaching on the University's sustainable development degree programmes. He has a first degree in Environmental Science and a Masters' in Environmental Sustainability. He has previously worked on community-led sustainability initiatives, and research projects investigating public perceptions of carbon dioxide capture and storage. Rhys enjoys conducting public engagement activities to share research findings with practitioners, policy makers and the public.



*Knowledge gaps between value-based and evidence-based approaches for the proposed D&R MPA around Fair Isle, Shetland*

Marwin Buresch (MSc candidate, University of Edinburgh)

The Fair Isle community recently submitted a proposal to the Scottish Government, in order to establish a Demonstration & Research Marine Protected Area around Fair Isle, Shetland, UK. The

objectives of the proposed MPA are a) to investigate the factors affecting seabird populations on Fair Isle, particularly climate change impacts and direct human influences and b) to demonstrate the socio-economic benefits of the marine environment and the additional benefits that MPA designation can bring to the community. This dissertation aims to identify existing knowledge gaps, relevant to establishing the proposed D&R MPA, and to analyse how these gaps could be addressed. By exploring potential and on-going research this study aims to give recommendations for future research with emphasis on community involvement for data collection and monitoring.



I am currently studying Marine Systems and Policies (MSc) at the University of Edinburgh. My academic background is an interdisciplinary mix between Coastal Zone Management and marine science. My professional interests include community engagement and stakeholder communication but I also became interested in marine science during my previous studies and internships. The dissertation I am working on right now deals with the recently proposed Demonstration & Research MPA around Fair Isle. The main focus is to address Phase 1 of the proposal, which aims to identify and analyse knowledge gaps and outline potential future research.

### *The Ecosystem Approach and tools for marine planning*

Chris Leakey (Scottish Natural Heritage)

The Ecosystem Approach is a widely promoted concept for all manner of management processes and projects. The Convention on Biological Diversity adopted twelve principles for its application, which we can capture with three broad themes: involving people, understanding how nature works, and valuing nature's services. Various resources guide marine planners and their governing bodies on how to go about their work, and the ecosystem approach is central to these. Promoting and embedding the concept and principles is important, but marine planners also need support for practical implementation. However, there can be no single 'how to' guide for an ecosystem approach to marine planning. The appropriate range of tools, methods and information will vary according to the scenarios of the plan area. Neither can it be said that a plan simply 'has' or 'has not' taken this approach. The process of planning and the legal requirements regarding conservation designations mean that, *to some extent*, all plans will take an ecosystem approach. But the efficacy of an ecosystem approach could vary greatly: from very basic considerations with limited benefits, to advanced approaches with extensive benefits. Marine planners must choose from a broad suite of potential tools, applying and adapting according to circumstances in their area. I will summarise a review selected existing tools, examples and practical guidance, providing a gateway to resources that could support an ecosystem approach to marine planning.

The full paper is available to read here: <http://www.snh.gov.uk/docs/A1974249.pdf>



*Chris Leakey is a Policy and Advice Officer in the Coastal and Marine Ecosystems Unit of Scottish Natural Heritage. Following a background in marine ecology, Chris has worked in a variety of roles in SNH, including nature reserve management and monitoring, development consenting (marine and terrestrial) and fisheries management. These roles have involved working with a range of industries across Scotland to better understand and manage their environmental impact, and to support their sustainability. More recently he has been involved in the emerging marine planning system for Scotland and related policy contexts. Particular interests include the pursuit of a management system and knowledge base that supports more proactive avoidance of unsustainable impacts, but also identifies opportunities for enhancement or recovery of ecological functionality to the benefit of nature and human society alike.*

### *Recognising community voices in marine management*

Jasper Kenter (Scottish Association of Marine Science)

There is increasing emphasis on participatory and deliberative methodologies for involving stakeholders and local communities in ecosystem management and ecosystem services valuation, in order to enhance the quality of decisions taken and the legitimacy of the process, and reduce risk of potential conflict. I will give some recent examples of participatory approaches in marine contexts, including a collaboration between Sussex IFCA, Natural England, the Marine Conservation Society, SAMS and UHI where we implemented a Community Voice Methodology as a pre-consultation for implementing two recently designated Marine Conservation Zones. I will also give some pointers as to the key factors that influence the success of deliberative and participatory processes.

*Dr Jasper Kenter is Principal Investigator in Ecological Economics at the SAMS Laurence Mee Centre for Society and the Sea, honorary fellow of the University of Edinburgh and a board member of the European Society for Ecological Economics. He is an expert in deliberative, participatory and non-monetary valuation of ecosystem services and was lead author for the UK NEA follow-on Work Package on Shared, Plural and Cultural Values. To contact him visit [www.jasperkenter.com](http://www.jasperkenter.com) or email [jasper.kenter@sams.ac.uk](mailto:jasper.kenter@sams.ac.uk).*



### *Scottish Marine Tourism and Recreation Survey*

Sarah Brown (Clyde Marine Planning Partnership)