

# North Devon Marine Pioneer workshop

## 9th May 2019

### Marine Working Group



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## Introduction and aim of the day

The workshop in Ilfracombe on 9<sup>th</sup> May was attended by 34 people from the North Devon Biosphere’s Marine Working Group, the Marine Pioneer Steering Group and other invited people. The aim of the day was to: share information with the group; understand how we could better communicate with each other; introduce the Marine Natural Capital Plan; and develop activities and actions that would meet Marine Natural Capital Plan priorities.

## Information sharing

The North Devon Marine Pioneer team provided an update on the North Devon Marine Pioneer’s activities since the last workshop, including: the newly published North Devon Marine Asset and Risk Register, which the Marine Working Group had contributed to at the September 2018 workshop; the North Devon Marine Natural Capital Plan was introduced; UK SEAS provided an update on their sustainable financing work, with a presentation given by Olivia Bennet and Alicia Gibson from Environmental Finance, on a Blue Impact Fund; and newly recruited Tom Mullier from the University of Plymouth, discussed options for the North Devon marine geodatabase.

There were also updates from organisations represented on the Marine Working Group. Jenny Carey-Wood, Manager of North Devon Coast Areas of Outstanding Natural Beauty (AONB) introduced Natures Tonic, a joint AONB and North Devon Biosphere pilot project working with GPs in 3 areas, which will help to understand how social/green prescriptions can be used to address barriers to getting outdoors. Felicity Sylvester and Mike Teare, from Sustainable Fish Education, gave an update on the great work that they have been doing across North Devon, working with schools and community groups on a range of activities around herring (storytelling, films, cooking demonstrations, fish preparation, etc). They have reached over 1,000 people over the past 3 years.

It was also an opportunity for two students to introduce themselves: Rachel Holtby a PhD student from Northumberland University, who is working with the Marine Pioneer to investigate and understand different methods of governance of the marine environment; and Munshidha Ibrahim a Master’s student based in the University of Exeter who is researching the status of historical fisheries in North Devon (from 1866 to 1964).

## Engaging with the Marine Working Group

Chrissie Ingle presented an analysis of the Marine Working Group which was completed to understand how the Marine Pioneer team have been engaging with the Marine Working Group over the Pioneer, so far. This wasn’t a comprehensive study the analysis was primarily based on the outputs of the ‘about me’ survey that was sent out early in the Marine Pioneer (so not all current members had completed). What it did highlight,

though, was the current method of larger day long cross sector workshops was becoming less efficient over time (with fewer members able to attend). A proposal was put to the Marine Working Group to reduce the length of the workshop, have more smaller expert task and finish groups and one half-day, information sharing, cross sector group per year. The consensus was that this was a good idea, if there were still opportunities for networking.

The analysis was also used to check that there were enough people from the North Devon Biosphere area represented at the meetings. It was also used to check that the different themes needed for a good cross sector workshop, representing a range of interests, were represented at the workshops/meetings. The findings were that cabling/marine technology and geology/geomorphology were underrepresented, which will need addressing if progressing work with these themes through the Marine Natural Capital Plan.

## 1<sup>st</sup> exercise – communicating

The aim of this exercise was to develop ways that the people working on the Marine Pioneer can help the Marine Working Group to distribute information about the Marine Pioneer through their networks and how we can receive information, with the criteria that there are limited resources for communications.

Key ideas that came out of this exercise were:

### *General public:*

- Develop some information for the general public that can be shared by partners but be careful of language, know your audience and don't use 'Natural Capital language' – this is useful for people who allocate money (accountants/treasury) not others. *"we don't need a new language"*.
- Just provide key messages - the technical side of the Marine Pioneer isn't useful to general public, but newsworthy stuff (e.g. waste shark) is.
- Raise awareness of issues with public signage e.g. Torbay spent money on signage/fixing moorings and interpretation about seagrass.

### *Marine Working Group interaction*

- Provide contact details of people in the Marine Working Group (where permitted) so that we can easily work with each other.
- Develop an online directory of all the different organisations involved in the Marine Working Group and Marine Pioneer – purpose, contacts, websites, social media
- Add to this those groups that provide activities around the marine environment, such as beach clean groups.

### *Communication strategy and plan*

- Think about what you want to do - are you informing, receiving information, or engaging
- What are the key messages that you want to forward to people?
- Identify partner organisation's communication channels – social media, websites, e-newsletters, etc, and ask them to share news/information and reciprocate. Define their interests and target particular messages and information – don't bombard with things that are not of interest.
- Be careful how you describe who you are engaging with i.e. North Devon Marine Pioneer said it was about more than just North Devon (Somerset and Cornwall), but hasn't gone out of its way to involve the surrounding counties or do any demonstration projects that involve cross border engagement. Perhaps due to the lead partner being the ND Biosphere Reserve.

### *Website*

- Have a place for Frequently Asked Questions *"what about an 'ask Andy' email"*.

- Make the webpage more user friendly – simplify it and add the summary documents.
- Sort by activity as well – fisheries, MPAs, etc

### *e-news/electronic*

- Provide a concise summary with visual aids, 6 monthly (or more frequently if there is interesting news) but link to in depth documents reports/website links and make it thematic. Bullets are fine.
- Circulate information through existing stakeholders, networks social media and formal media channels.
- Printed materials are dead – nice to pick up but then thrown away. Hard to store, refer to or share compared to digital materials. They also come across as old fashioned. Need to be an emailed PDF these days.
- Text messages are useful – if can be done
- Provide useful social media soundbites – tweets, Facebook posts, with images and links

### *Direct engagement*

- Attend and participate in local community groups where possible, not just the usual suspects; for example, give a talk at Appledore Book festival.
- Reach out to local community groups – for example 2-minute beach clean to spread the word? (i.e. through their own media), Appledore Book Festival, present a talk? Provide simplified overview that can be cascaded easily – e.g. to a local club.
- You need to engage with existing processes and be involved. Attend meetings or have a representative to attend meetings e.g. we have the SW Regional British Ports Association. They tell us what is going on. It's a full-time job to engage in planning and policy discussions.
- Having a person in your organisation that does environmental work and is the go-to person. Maybe if the natural capital plan helped encourage every organisation to have a semi-knowledgeable environmental rep.

### *Marine Pioneer and 25-year environment plan*

- Explain the link between the two
- Infographic of Marine Pioneer on front page of website.
- Road map - Direction of travel where we are and where we have come from.
- Programme timeline/critical path – milestones with hyperlink to update on website
- Clarify Marine Pioneer, UKSEAS, Biosphere, etc and how they link together.

## 2<sup>nd</sup> exercise – ideas for the Marine Natural Capital Plan

The next step for the Marine Pioneer is to bring all the parts of the North Devon Marine Pioneer into a useful package, and this will be the [Marine Natural Capital Plan](#). The Marine Working group were asked to brainstorm potential ideas, for inclusion in a Marine Natural Capital Plan, based on the outputs from the Marine Pioneer so far. The outputs from the [North Devon Marine Natural Capital Asset and Risk Register](#) were presented and each table was given a copy of the full risk register table and headlines for reference (Annex A). The ideas were then brought together and voted on – with each person given 3 chances to vote on the ideas (numbers in parentheses indicate the number of votes).

### *Education and outreach (21)*

- Using locals to inform visitors and businesses (B & B, camping)
- Providing schools with resources
- Permanent space for wildlife education – educate the youth.

### *Planning (14)*

- Create simple tool for terrestrial planners to link decisions to the sea.

#### *Disturbance of wildlife and zoning (13)*

- Understanding what and where and how
- Zoning
- Boat accreditation scheme
- Use other area's experiences
- Heart and minds
- Guidance on good places to walk dogs.

#### *Renewable Energy (12) (Son of Atlantic Array + tidal)*

- Education and acceptance
- Comparing costs and benefits
- Where marine renewables should and shouldn't go

#### *Tourism hotspots – reducing pressure (6)*

- Biocultural heritage tourism
- Promote tourism boats based in and accessing other places (need improvements to infrastructure)

#### *Sea Defences (6)*

- Evidence of Green Infrastructure benefits.
- Development of business cases
- Net gain and local planning links
- Saltmarsh creation

#### *Anchoring – Mooring (4)*

- Providing mooring vs Anchoring away from sensitive sites
- Zoning
- Permanent Eco – mooring at Lundy.

#### *Agriculture (3)*

- Tie in marine elements to targets – catchment-based farming

#### *Businesses (1)*

- Tie in tourism to marine management

#### *Clean water (1)*

- SWOT of what is and is not working.
- Rose of accreditation and supply chain business
- Evidence base for decision making/investment

More detail of these discussions is found in Annex B

## 3<sup>rd</sup> exercise – developing the ideas

The top four ideas from the previous session were allocated to the four tables and the participants could select the ideas that they were most interested in, to discuss further. The aim of this exercise was to identify how these projects/workstreams could be delivered locally – who might be interested. It was stressed that this was not a commitment to deliver these ideas, but an indication of interest. Each table produced slightly different results, which may be due to the different complexities of each subject, but each table was asked to identify who in the group might be involved and who else we could approach and then to discuss strategies for progressing the idea. The results can be seen in the tables below.

## Education and Outreach - discussion

This group felt that the focus of any education and outreach work should be:

- More focus on inspiration and connection, less on passing on information
- Focus on children, residence, tourists and sea users.
- Who are we trying to “educate” and why? – what message? – to change behaviours?

A main issue identified by this group was insurance for outdoor public events. It is difficult for small community groups that want to do good things to be able to afford public liability Insurance for outreach work, festivals and for approved volunteers. They also mentioned needing help with risk assessments

Your organisation	Who else to approach?	Potential ideas	Resources
<ul style="list-style-type: none"> <li>• Devon Maritime Forum</li> <li>• Sustainable fish education</li> <li>• Way of the Wharves</li> <li>• Ilfracombe aquarium</li> <li>• Devon local nature partnership</li> <li>• Biosphere Reserve</li> </ul>	<ul style="list-style-type: none"> <li>• Coastwise North Devon</li> <li>• Retired &amp; local fisherman</li> <li>• AONB</li> <li>• Blue Marine Foundation</li> <li>• Sub – aqua clubs</li> <li>• Surf schools / SUP users</li> <li>• Marine users – water sports, sailing/ yacht clubs, etc</li> <li>• Schools – primary, and secondary. Teacher training Petroc</li> <li>• Journalists, press, radio, TV.</li> <li>• Combe Martin Sea Angling club</li> <li>• Exmoor National Park</li> <li>• Wildlife trusts</li> <li>• Marine Conservation Society</li> <li>• Royal Geographical Society</li> <li>• CMS– Bob Earll</li> <li>• Students of marine studies</li> </ul>	<ul style="list-style-type: none"> <li>• Start by asking these people what more they would like to do.</li> <li>• A seasonal cookery book on sea/estuary food (fish, shellfish, seaweed etc.) – with related calendar for people to use.</li> <li>• International exchange of younger people, fisherman and others with Newfoundland/ Canada to enthuse about the historic links with cod trade and boat building, etc.</li> <li>• Could suggest possible dissertation topics to SW universities to investigate various ideas (e.g. people behaviours/ levels of knowledge of coast &amp; marine environments/ scientific investigation)</li> <li>• Sea schools</li> <li>• Volunteer training – “ambassador for sea”</li> <li>• Video, resources for schools.</li> <li>• Online generic materials anyone could use</li> <li>• Outreach – into marine festival support</li> <li>• Purchase/lease building space in museum/library for permanent exhibition</li> </ul>	<ul style="list-style-type: none"> <li>• UN ocean literacy pack</li> <li>• Open access resources – WWF</li> <li>• MMO</li> <li>• Blue Marine foundation</li> <li>• Money – from local fish processors, national fish processors, fishmonger’s hall London.</li> <li>• BBC – natural history unit for sponsorship</li> <li>• Marine conservation society – information and ideas</li> <li>• Seafish – ‘Fish in the Dish information’ and resources.</li> <li>• Manufacturer supply</li> <li>• Surfing industry</li> </ul>

Your organisation	Who else to approach?	Potential ideas	Resources
	<ul style="list-style-type: none"> <li>• Northam Burrows</li> <li>• National Trust</li> </ul>	<ul style="list-style-type: none"> <li>• Use of a boat – created from waste plastic to navigate to Taw/ Torridge estuary as a learning resource.</li> </ul>	

## Disturbance of Wildlife - discussion

This discussion focussed on estuary, coast, marine and islands and included seals, birds (wintering, nesting, feeding), cetaceans (dolphins, porpoise) and the different types of disturbance including:

- Paddle boards
- Jet skies
- Kayaks
- Diving and dive boats
- Dogs and walking

Who should be involved?	Ideas:
<ul style="list-style-type: none"> <li>• Shelly N and other boating – already have a positive impact.</li> <li>• WWF</li> <li>• IFCAs</li> <li>• Environment Agency</li> <li>• Vets</li> <li>• Devon Wildlife Trust local groups (sharing knowledge, doing monitoring, community engagement with local wildlife)</li> </ul>	<ul style="list-style-type: none"> <li>• Information boards – in harbour (for organisations that have out at sea equipment, i.e. kayaks)</li> <li>• Code of conduct – 50m distance from seals on rocks, set speed on boat around species.</li> <li>• Zoning for set skis</li> <li>• Diving, paddle boards and anchoring enforcements.</li> <li>• Vets for dog walking (poster in vet waiting rooms re: 'dog walking')</li> </ul>

## Planning - discussion

Your organisation	Who else to approach?	Ideas
<ul style="list-style-type: none"> <li>• Devon Wildlife Trust</li> <li>• MMO</li> <li>• Devon Maritime Forum - Devon LNP</li> <li>• Torridge District Council</li> </ul>	<ul style="list-style-type: none"> <li>• Other parts of government included in or affected by land decisions.</li> <li>• Local authorities (e.g. North Devon, West Somerset)</li> <li>• Cornwall district councils</li> <li>• Devon County Council</li> <li>• Welsh Government</li> <li>• Other environmental NGOs (e.g. National Trust, RSPB, Woodland Trust, etc.)</li> <li>• Natural England (leading Nature Recovery Network)</li> <li>• 5 big national developers</li> <li>• Local plan agents</li> </ul>	<ul style="list-style-type: none"> <li>• Inform local plan stage – build on South West habitat map.</li> <li>• Needs to be 'live' and community updates.</li> <li>• Nature Recovery Network – terrestrial, marine, urban, rural.</li> <li>• Cross – Discipline (same system informs planning, land use – e.g. Agriculture, transport, etc.)</li> <li>• Key priorities to be achieved</li> <li>• Mechanism for training planners</li> <li>• Inform future neighbourhood plans – in the future, plans would be built around important habitat maps.</li> <li>• Identify individual parcels of land which could be restored (NRN)</li> <li>• Need to develop a Natural Capital Plan which becomes either a supplementary policy document or means of giving the natural capital plan a weighting preferably a significant weighting for decision makers.</li> </ul>



## Renewable Energy – discussion

Your Organisation:	Who else to approach?	Other strategies needed
<ul style="list-style-type: none"> <li>• North Devon Coast AONB</li> <li>• Plymouth Marine Lab</li> <li>• Biosphere Foundation</li> <li>• Coastwise North Devon</li> </ul>	<ul style="list-style-type: none"> <li>• Community energy organisations</li> <li>• University of Plymouth</li> <li>• Energy Companies</li> <li>• Environmental NGOs</li> <li>• Landowners (onshore connections)</li> <li>• Device Developers</li> <li>• Local Authorities</li> <li>• Crown estate and other seabed “owners”</li> <li>• Recreation and tourism (boat operators)</li> <li>• Lundy</li> <li>• Natural England</li> <li>• Marine engineering contractors</li> <li>• Geologists</li> <li>• Hydrologists</li> <li>• Fisherman and anglers</li> <li>• Seabed User Groups – SUDG’s</li> <li>• NGOs</li> <li>• WWF</li> <li>• MMO licencing</li> <li>• Aquaculture industry developers</li> <li>• If piling/booming – marine mammal observers/ survey organisations</li> </ul> <p>Also affected:</p> <ul style="list-style-type: none"> <li>• National trust</li> <li>• Exmoor National Park</li> <li>• Gower AONB</li> <li>• Pembroke National Park</li> </ul>	<ul style="list-style-type: none"> <li>• Seascape character assessment – how SPD for Torridge and North Devon councils</li> <li>• Understand and quantify co – benefits and opportunities/ co – loses and risks (to help inform decisions under a natural capital framework.)</li> <li>• Identify vulnerable/ robust species/habitats.</li> <li>• Identify “Net Gain”/co – benefits</li> <li>• Public acceptability</li> <li>• Multi – use platforms.</li> <li>• Education resources</li> <li>• Further surveying/testing of visitor’s reaction to wind turbine visual impact.</li> <li>• Tidal lagoon and estuary current quantification and siltation studies.</li> <li>• Link to MMO marine plan</li> <li>• Grid connections – onshore cable routes/ connections</li> <li>• Liaison with NRW and Welsh stakeholders.</li> <li>• MMO Marine Plan due to begin</li> </ul>

## Summary of the day

This was a useful day with some interesting ideas coming out of the groups. Although only four of the subjects were discussed in detail on the day, the other ideas will be investigated further. When specific actions/activities are identified that meet the Marine Natural Capital Plan criteria or can be delivered within other projects - task and finish groups will be developed, to include Marine Working Group members plus any other willing organisations identified.

In retrospect, the 'education and outreach' and 'disturbance of wildlife' themes were quite detailed and complex and should have been broken down further, but the ideas that came out of these groups can be used to form the basis for further discussion in the task and finish groups to make them useful for the Marine Natural Capital Plan.

## Next steps

To contact the members of the Marine Working Group and other organisations to set up smaller task and finish groups around the themes identified on the day, and work that is already progressing.

To develop the Marine Natural Capital Plan project in more detail and publicise it.

To draw up a communication plan for current work and future work through the Marine Natural Capital Plan, using the ideas that came from the group to enable better knowledge exchange and identify potential resources to do this.

# ANNEX A - North Devon Marine Asset and Risk Register - table and headlines

The full table and headlines were provided to inform Marine Working Group discussion

Asset	Saltmarsh	Littoral rock	Littoral coarse sediments	Littoral sand and muddy sand	Littoral mud	Littoral mixed sediments	Littoral biogenic reefs	Infra-littoral rock	Circa-littoral rock	Sub-littoral coarse sediment	Sub-littoral sand	Sub-littoral mud	Sub-littoral mixed sediments	Water bodies	Bathing waters	Shellfish waters	Fish (quota species)	Fish (non-quota species)	Fish (migratory species (salmon and sea trout))	
Risk category policy	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.	Qun Qal Sp.
Risk cat. Community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community	Risk: Local community
Food (Wild Food - fish and shellfish).	B (4) C (4) C (8)	B (4) B (4) B (4)	B (4) B (4) B (4)	B (4) B (4) B (4)	C (4) C (4) C (8)	B (4) B (4) C (8)	B (4) B (4) C (8)	C (4) C (4) B (4)	C (4) C (4) C (4)	C (4) C (4) C (4)	C (4) C (4) C (4)	C (4) C (4) C (4)	C (4) C (4) C (4)	B (2)	C (2) C (2)	B (2)	C (4) C (4)	C (8) Lob B (4) Crab A (4)	C (4) B (4) C (4)	
Food - local																				
Healthy climate (carbon sequestration).	B (4) C (4) C (8)				C (4) C (4) C (8)		B (4) B (4) C (8)	C (4) C (4) B (4)						B (2)						
Climate -local																				
Sea defence. (natural hazard regulation / flood prevention).	B (4) C (4) C (8)	B (4) B (4) B (4)	B (4) B (4) B (4)	B (4) B (4) B (4)		B (4) B (4) B (4)	B (4) B (4) C (8)	C (4) C (4) B (4)						B (2)						
Sea defence - local																				
Recreation and Tourism	B (4) C (4) C (8)			B (4) B (4) B (4)	B (4) B (4) B (4)			C (4) C (4) B (4)	C (4) C (4) C (4)					B (2)	C (2) C (2)	B (2)	C (4) C (4)	C (8) Lob B (4) Crab A (4)	C (4) B (4) C (4)	
Recreation and Tourism - local																				
Clean water and sediments.	B (4) C (4) C (8)				C (4) C (4) C (8)		B (4) B (4) C (8)			C (4) C (4) C (4)	C (4) C (4) C (4)	C (4) C (4) C (4)	C (4) C (4) C (4)	B (2)	C (2) C (2)	B (2)				
Clean water -local																				

# North Devon Marine Pioneer

## *The benefits of nature*







North Devon's Natural Capital Asset and Risk Register

### What is it?

An asset and risk register is a way to identify all the benefits that come from nature – especially when it is in good condition – and the risks to those benefits.






### North Devon's habitats

*Saltmarsh photo – North Devon Biosphere, all other photos courtesy of Keith Hiscock*

<p>Saltmarsh</p> 	<p>Intertidal reef</p> 	<p>Biogenic reef</p> 
<p>Subtidal reef</p> 	<p>Intertidal sediments</p> 	<p>Subtidal sediment</p> 

## What does North Devon's Asset and Risk Register tell us?

Most asset–benefit relationships are at medium-to-high risk of loss. There are particular risks to future benefits from food (wild food fish and shellfish); clean water and sediments; and recreation and tourism. Community-based knowledge supports this finding. Understanding these risks helps us to identify potential management options and collaborative solutions.

<p>Food production (fisheries):</p> <ul style="list-style-type: none"> <li>• The three-dimensional structure of saltmarsh vegetation during high tide gives shelter and food for juvenile fish species</li> <li>• Reefs (including biogenic reefs, where the structure is created by the animals themselves), and kelp (seaweed) communities, provide shelter and food for young fish, crustaceans and mollusc that are commercially targeted</li> <li>• Sediment habitats (a vast area of the reserve) are a significant provider of food for fish.</li> <li>• The water of the ocean is important for wild food. The currents of the sea and the chemical composition, how the water is 'layered' (different densities, temperatures and nutrients) and how much or little those layers mix together are all important, as well as 'primary production' which is when the plants in the sea make their own food using just the sun, water, and air.</li> </ul>		<p>At <b>high risk</b> due to the extent of sublittoral habitat currently without management objectives, and with impaired quality due to previous fishing activity.</p>
<p>Healthy climate:</p> <ul style="list-style-type: none"> <li>• Saltmarsh plant, algae and kelp communities and soft substratum sediments capture and store carbon.</li> <li>• Marine living organisms contribute to the balance and maintenance of the chemical composition of the atmosphere and oceans.</li> </ul>		<p>At <b>risk</b> due to the degraded quality of the saltmarsh and rock/reef habitats.</p>
<p>Sea defences:</p> <ul style="list-style-type: none"> <li>• Physical structures such as reefs dampen wave energy from tidal surges and storms.</li> <li>• Saltmarsh stores floodwater and reduces water currents and wave energy.</li> <li>• Sediment habitats also dissipate wave energy, reducing the risk of damage to coastal defences and flooding of low-lying land.</li> </ul>		<p>At <b>risk</b> due to fragmented habitats and degraded quality.</p>
<p>Tourism and recreation:</p> <ul style="list-style-type: none"> <li>• Clean water is central to water sports, wildlife watching, fishing, appreciating scenery (e.g. from a viewpoint), swimming outdoors, and enjoying the beach (sunbathing or paddling).</li> <li>• Saltmarsh provides coastal access points, nature watching, species for recreational fishing and foraging, and aesthetic interest.</li> <li>• Littoral sand, coarse and mixed sediments provide beaches and coastal access points.</li> </ul>		<p>At <b>risk</b> due to degraded habitats and instances of poor water quality.</p>
<p>Flows of clean water:</p> <ul style="list-style-type: none"> <li>• Vegetation in saltmarsh baffles water currents and stabilises sediments, which store organic matter, nutrients, carbon, nitrogen and phosphorus; the remaining organic material is recycled or exported.</li> <li>• Organisms living on the seabed in soft substratum habitats rework the sediment by burrowing, which enables nutrient cycling.</li> </ul>		<p>At <b>risk</b> due to historical fishing pressure in sublittoral sediment habitats limiting the structure and function of habitats.</p>

## ANNEX B - Marine Working Group - table discussions

These tables were completed when discussing different actions that could potentially contribute to the Marine Natural Capital Plan.

Education and outreach (21)				
<i>Activity/Action</i>	<i>What is the problem?</i>	<i>Source?</i>	<i>How will activity /action improve nature?</i>	<i>What is needed</i>
Education outreach	Local population information, where to start?	Marine Working Group	Sense of pride, wanting to protect. Take footfall away from sensitive sites.	Use hotels, B&Bs, campsites, etc. Then chamber of commerce and local groups. <ul style="list-style-type: none"> <li>- Encourage organisations to be involved in attending meetings and be involved in processes</li> <li>- Have a post/person in each organisation representing the environment</li> </ul>
Education – marine litter	People leave litter in beautiful places.		Less damage to wildlife by litter.	More bins, empty more often.
Resourcing a good space for marine wildlife education and snorkel training.	Nothing in one place that is consistent and year-round.			<ul style="list-style-type: none"> <li>- Speak to Wembury in South Devon.</li> <li>- More information signs</li> <li>- Snorkel safaris</li> <li>- Virtual reality filming about what is underwater and take to inland communities.</li> </ul>
Promoting youth involvement, school talks and trips.	Not much engagement from youth in marine environment. People don't realise how nice Devon sea is.	Anecdotal	Future generations aware of need to protect the sea.	<ul style="list-style-type: none"> <li>- Find cheaper alternatives e.g. snorkelling instead of diving.</li> <li>- Make a big deal of species e.g. largely the lobsters</li> <li>- Appledore school – seaweed.</li> </ul>
"Stuff down the loo" campaign	Water quality – making it personal			
Communicate better about rules	People don't know bass fishing rules			
Maps and interpretation on coastal path – Natural Capital guide	Lack of awareness of habitats			

Planning (14)				
<i>Activity/Action</i>	<i>What is the problem?</i>	<i>Source?</i>	<i>How will activity/action improve nature?</i>	<i>What is needed</i>
Planning decisions and net gain process linked to sea.	Planning decisions aren't linked to marine.		Reduce impact of development on the sea.	Planners need to be aware of marine issues and understand and develop a simple tool for what to consider. Nature recovery network mapping tool.

Disturbance of wildlife and zoning (13)				
<i>Activity/Action</i>	<i>What is the problem?</i>	<i>Source?</i>	<i>How will activity/action improve nature?</i>	<i>What is needed</i>
Activity zoning, e.g. dogs/ jet skis/ kayakers particularly in estuary's.			Avoid disturbance.	<ul style="list-style-type: none"> <li>- Guidance on safe places to walk dogs</li> <li>- Displacement options, i.e. if you can't go here, you can go here.</li> </ul>
Disturbance studies for all wildlife  Support – citizen scientists to gather information Volunteer codes education on exe  Other recreation / tourism activities (esp water sports – jet skis in Taw Torridge – educating users, “enforcing” code of conducts	Disturbance of wildlife - growing problem Including from recreational activities	<ul style="list-style-type: none"> <li>- Taw Torridge Bird disturbance study</li> <li>- Exe</li> <li>- Tees – dog</li> <li>- S Hampton – other districts</li> <li>- Cornwall seal group</li> </ul>	Zoning/ codes of conduct	<ul style="list-style-type: none"> <li>- Long process, learn from Exe</li> <li>- MPA – management issue</li> <li>- Will come through</li> <li>- Issues – Environmental Assessment on some land</li> <li>- Water – common owned bed</li> <li>- Hearts &amp; minds (extensive consultation) for all voluntary codes</li> </ul>
Impact of harvesting study – is it a problem? What are legal requirements?				

Renewable Energy (12) (Son of Atlantic Array + tidal)		
<i>Activity/Action</i>	<i>What is the problem?</i>	<i>What is needed</i>
Renewable energy ("son of Atlantic array") Also, tidal	Offsetting benefits of renewable energy against local impacts	<ul style="list-style-type: none"> <li>- Education – acceptance</li> <li>- Energy strategy in Nat Capital plan</li> <li>- Comparing costs and benefits and communicating</li> <li>- Highlighting some of the less clear issues</li> <li>- Identify areas where energy should/ shouldn't go.</li> </ul>

Sea defences (6)		
<i>Activity/Action</i>	<i>Source?</i>	<i>What is needed</i>
BEET(?) – Sea Defences  Create Saltmarsh (support managed retreat)  Enhance kelp and saltmarsh areas and seagrass beds.	National capital plan – Evidence base (identify asset bases, needed for coastal area) – NDBR and councils running pilot net gain schemes - SPD (Supplementary Planning Document) draft net gain. - Investment in catchment management – net gain from proposers' development. - National possibility for money? - Now, needs close link to lost habitat	<ul style="list-style-type: none"> <li>- Take account for statutory requirements/ plans</li> <li>- Flood rise and coastal management - financing defence works</li> <li>- Immigrate National Capital Plan into grants in aid (evidence for particularly monetised benefits.</li> <li>- Innovative funding</li> <li>- Reducing revenue costs (e.g. concrete vs salt mash)</li> <li>- Salt mash creation – involve land owners in business case conservation.</li> <li>- Intellectual capital to support business case development and how to calculate new payments.</li> </ul>

Tourism hotspots – reducing pressure (6)				
<i>Activity/Action</i>	<i>What is the problem?</i>	<i>Source?</i>	<i>How will activity/action improve nature?</i>	<i>What is needed</i>
Mapping to share the load of tourism – identify who might be interested, divert people, draw heritage culture.	Number of people going to a particular place, i.e. Snowden on bank holiday Mondays, causes a tension.	Anecdotal	Reduce pressure	Make connections - Directory of sites of unrest



Tourism hotspots – reducing pressure (6)				
<i>Activity/Action</i>	<i>What is the problem?</i>	<i>Source?</i>	<i>How will activity/action improve nature?</i>	<i>What is needed</i>
Biocultural heritage tourism project pilot ideas taken on!				- Scenario planning for consequences, what should holidays by the sea look like?

Anchoring vs Mooring (4)				
<i>Activity/Action</i>	<i>What is the problem?</i>	<i>Source?</i>	<i>How will activity/action improve nature?</i>	<i>What is needed</i>
Anchoring of vessels in Lundy - reduce damage, communication through yacht clubs (been done but can be replicated)	Selected mooring tie-up rather than anchoring	- Advisory groups - MPA – Lundy. - Conservation - Charter boat owners	- Reduces impact with sensitive areas - Good safe mooring increases benefits. - Less damage to sea bed	- Monitoring in place to look at where anchors are used (zones with no anchoring zoning schemes in place.)
Permanent mooring at Lundy (Eco – moorings)	Anchoring at Lundy MPA – kills seaweeds and marine life.			- Code of conduct disturbance of seals. - Charge for mooring. - Create mooring with signs - Gain support from yachting community

Agriculture (3)	
<i>Activity/Action</i>	<i>What is needed</i>
- Coastal champions for terrestrial problems, e.g. farmers change “shout about consequences” - Evaluate and monitor interventions, i.e. environmental assessment work with farmers - Tie in marine elements into targets and options for AES/EMS	Surfers Against Sewage

- Develop net gain/offsets network	
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Clean Water (1)			
<i>Activity/Action</i>	<i>What is the problem?</i>	<i>Source?</i>	<i>What is needed</i>
Clean Water		Upstream thinking	<ul style="list-style-type: none"> <li>- Bathing water has statutory calculation (SWOT on what is not working) Has been lots of investment</li> <li>- Needs more education?</li> <li>- More diversification?</li> <li>- More regulations?</li> <li>- Conservation with business (support chain)</li> <li>- Accreditation e.g. Red tractors.</li> <li>- Evidence for businesses to support decision making</li> <li>- Case studies of terrestrial impacts on the sea, parts of films?</li> </ul>
Boats and water quality	Issue: boats pumping out sewage and waste water directly into the harbour, nobody enforcing the rules leading to bad water quality. This issue was compared to when disability legislation came in and people really kicked up a fuss leading to the introduction of floating ramps at most ports. Discharging sewage is illegal but there hasn't been the advocacy push to make sure that pump outs are installed and used. There are no precedents in law.		<ul style="list-style-type: none"> <li>- Pump out facilities and ports – need a legal precedent to push enforcement – NB disabled access</li> </ul>
	Water quality - general water quality per activity in non-designated area. People don't know what water quality is outside of the MPA		<ul style="list-style-type: none"> <li>- South West water</li> <li>- Food source recreation</li> </ul>

Businesses (1)			
<i>Activity/Action</i>	<i>What is the problem?</i>	<i>How will activity/action improve nature?</i>	<i>What is needed</i>
Promote tourist boats out of estuary and Ilfracombe. E.g. Appledore (challenge of tide)	We need to sell North Devon environment more and need to improve.	People becoming aware and education of locals and tourists and incentive to improve	<ul style="list-style-type: none"> <li>- Overcome challenges of tides e.g. longer jetties.</li> <li>- Targeted infrastructure to allow other boats to operate.</li> </ul>

		environment for tourists and opportunities to bring in money for MPA (if you see porpoise put 50p in a pot)	<ul style="list-style-type: none"> <li>- Could improve quality of local MPAs so you can do local trips instead of going all the way to Lundy.</li> <li>- ID resources that organisations have to contribute, e.g. ports, boats/storage.</li> </ul>
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*Other issues:*

- Fishing – high priority
- Visual impacts on water (related to water)
- Look at how much of council tax is attributable to being by the sea (this much should go back into marine protection).
- Nature Recovery Network example - identify key locations of existing and potential habitat networks.
- Currently lack of understanding and inconsistency in planning and agri env/policy.
  - Currently have negative impacts on native species
- Private benefit for public goods – such as sea conservation in government

*Protest actions:*

- Identify most impactful themes
- Identify/ quantify financial benefits – “feelings”

## ANNEX C - workshop attendees

First name	Last name	Company/organisation
Melanie	Austen	Plymouth Marine Laboratory
Andy	Bell	North Devon Biosphere
Ben	Bengey	Ilfracombe fisherman
Olivia	Bennett	Environmental Finance
Leisje	Birchenough	Coastwise
Jay	Boyle	Devon Maritime Forum
Jenny	Carey-Wood	North Devon Coast AONB
Georgina	Carlo-Paat	Harbour Master – Ilfracombe (NDC)
Jo	Crewdson	Appledore Sub Aqua Club
Alex	Curd	Marine Management Organisation
Rose	Day	North Devon Coast AONB/NAAONB
Robert	Down	North Devon Biosphere Foundation
Alicia	Gibson	Environmental Finance
Brett	Grosvenor	Environment Agency
Steven	Guilbert	Devon Maritime Forum & Local Nature Partnership
Rachel	Holtby	Northumbria University
Tara	Hooper	Plymouth Marine Laboratory
Munshidha	Ibrahim	University of Exeter
Chrissie	Ingle	North Devon Biosphere
Robert	Irving	Lundy management forum/MPA advisory group
Paul	Labistour	Harbour Master – Bideford (TDC)
Aisling	Lannin	Marine Management Organisation
Rebecca	MacDonald	Somerset Wildlife Trust
Angelo	Massos	Torrige District Council
Tom	Mullier	University of Plymouth
Penny	Nelson	WWF
Jenny	Oates	WWF
Ed	Parr Ferris	Devon Wildlife Trust
Lawrence	Raybone	Ilfracombe Aquarium
Malcolm	Roberts	Coastwise
Felicity	Sylvester	Sustainable Fish Education
Mike	Teare	Way of the Wharves project
Betheney	Wills	University of Surrey
Sarah	Young	WWF