

North Devon's Biosphere Reserve Marine Working Group (MWG)

Proposal to Finding Sanctuary – North Devon Marine Conservation Zones: Iteration 3

The following submissions are for discussion and are not the final recommendations of the North Devon Biosphere Reserve MWG. The data has come from a variety of sources freely given by the local community and retrieved from reliable national data sources. They will require some further analysis.

1. Basis of Submission

This submission is made on behalf of the UNESCO North Devon Biosphere Reserve. It attempts to provide a consensus view from the region of marine areas which satisfy the FS criteria for MCZs, but which minimise impact on fisheries and leisure/recreation, both of which are very important to the region's economy. Organisations represented on the MWG are:-

- Coastwise North Devon
- Devon Sea Fisheries Committee (Observer)
- Devon Wildlife Trust Local Group
- Natural England (Observer)
- North Devon AONB& Biosphere Reserve Service
- North Devon Fisherman's Association
- North Devon+ Watersports Officer
- Taw/Torridge Estuary Forum
- North Devon Coast Areas of Outstanding Natural Beauty
- Finding Sanctuary (Observer)

These organisations are Biosphere Reserve Partners and their representatives on the MWG contribute specialised input relevant to North Devon – this may not reflect the official position regarding the FS MCZ process of the bodies in general, and is noted in the term "Observer".

2. Composition of Proposal

The proposal comprises four templates covering the following areas :- (numbers refer to the areas as listed in the Devon MCZ workshop, 05/07/10). Map 1 provides an overview of the proposed MCZs.

- 6 Taw/Torridge estuary
- 7 North Devon Coast from Saunton Down End to Foreland Point
- 8 Morte Platform
- 10 (&11) Hartland Point (including offshore) to Chapman's Pool
- 9 Lundy extension

The templates include a map of the area of interest, area overview, summary of data sources, FOCI represented, further work required, and possible conservation measures to be applied. (In addition there is a CD of underwater photographs covering some of the species identified in the templates)



Map 1: Overview of sites included in this document.

3. Conspicuous Omissions

Atlantic Array.

The group has operated in full awareness of the developments of the Atlantic Array. Whilst it agrees that there is scope for the co-location of an MCZ inside the array area to represent a narrow range of habitat types, it feels that at this stage it is too premature to designate an MCZ in there because the habitats will change during and after construction and as yet it can not be modelled what the habitats the area will represent once they have finally adjusted. Once the Array is being built and the area becomes unusable by the trawling community, consideration can be made for adjustment in the network of protected areas and may indeed be a reference site.

4. Proposal - Current Reservations

The MWG noted the concerns registered in the FS Progress report No.1 dated 12th July 2010. These included :-

- the tight schedule to finalisation of MCZs,
- levels of protection.
- quality and availability of data,
- the uncertainties associated with the proposed Atlantic Array wind farm area in the case of North Devon

The MWG has experienced the same difficulties, but recognises the importance of keeping to the defined timeline. Accordingly the proposals are submitted for consideration by FS in the most complete form possible by the deadline for the 2nd Iteration.

However, FS is requested to note that it is hoped to refine this submission for the 3rd Iteration (deadline January 2011) in the following ways:-

- The templates note data sources where it is judged that further interrogation and analysis will provide improved results
- The Morte Platform proposal is based on input by North Devon fishing representatives. Analysing the Fishmap data provided by the industry the proposed MCZ has been moved 2 Km east/southeast to ensure that the original biotopes are included but there is less conflict with known fishing activity. The group are in full agreement with this proposal.
- The proposals follow the defined guidelines for FOCI, but the MWG considers that one of the policy objectives, specifically "important aggregations or communities of marine species, particularly hotspots, where a large number of species gather in one area" is important in North Devon, and hopes that FS will give this appropriate consideration.
- Outline conservation measures have been included.

Location name: Taw-Torridge Estuary

Co-ordinates:

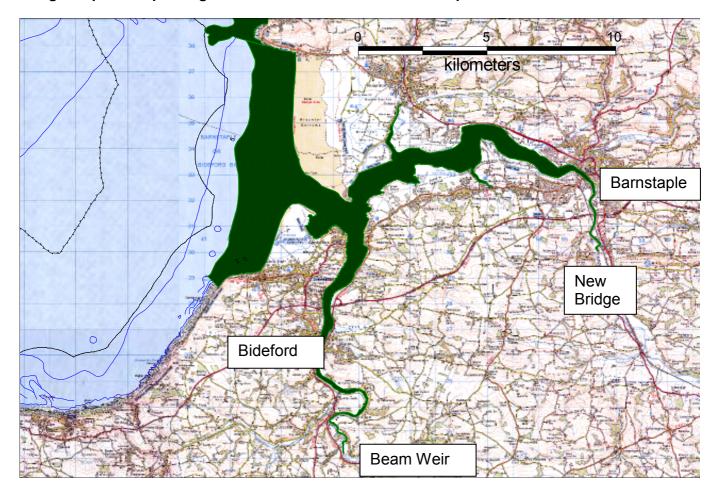
51.0366 -4.2629

51.1184 -4.2337

51.0509 -4.0505

50.9779 -4.1885

Rough map encompassing features of marine conservation importance:



Brief overview of area (including habitats and species).

Location Name and description:

All of estuary up to MHS, Tidal Limits up stream, Flanking beaches down to -5m bathymetry Saunton Down to Mermaids Pool.

Taw/Torridge Estuary SSSI, Braunton Burrows SAC, Northam Burrows SSSI.

Extending to tidal limits of Taw and Torridge, Caen and Yeo. Outer estuary limits of -5m contour from Down End to Mermaid's pool. Habitats include large intertidal sands of Saunton and Westward Ho!. Typical species of the intertidal sands include: Razor shell sp., sand mason worms. Inside the estuary, the mix of intertidal sand and mud are typical of estuaries. High abundance of *Corophium volutator* and large natural edible mussel beds. It is well known for its saltmarshes and includes newly created saltmarshes upstream of Bideford where there are marsh communities of very high quality. Estuarine rocky areas are found near the mouth, at Instow, Fremington and Northam. High energy intertidal rocks found on wave cut platforms at Westward Ho! and Saunton, Down End. Notable species include

Sabellaria alveolata, Caryophyllia smithii Devonshire cup coral, migratory and diadromous fish species (Salmon, Sea trout, Sea lamprey, Allis shad and Common eel). Deep tide swept channel at estuary mouth >8m deep.

Level of consensus within BR MCZ Group:

Unanimous (issues now resolved with renewable energy sector)

Broadscale habitats represented (estimated, needs to be from survey data):

- A1.1 High energy intertidal rock
- A2.1 Intertidal coarse sediment
- A2.2 Intertidal sand and muddy sand
- A2.3 Intertidal mud
- A2.5 Coastal saltmarshes and saline reedbeds
- A2.7 Intertidal biogenic reefs (Mussel beds)

Features of Conservation Importance represented OSPAR/UK BAP habitats:

- Tide swept channels (UK BAP)
- Sheltered muddy gravels (UK BAP)
- Estuarine rocky habitats (UK BAP)

OSPAR/BAP/Wildlife & Countryside Act Schedule 5 species (not including highly mobile species or birds):

- Pleuronectes platessa Plaice (UK BAP, Nerc 41)
- Sabellaria alveolata Honeycombe worm (UK BAP)
- Alosa alosa Allis shad (WCA 5 1981, UK BAP)
- Haliclystus auricular Stalked jellyfish (UK BAP)- Coastwise observations include this species at Downend.
- Lutra lutra Otter (UK BAP, WCA 5 1981)

Additional rare, scarce and sensitive species present:

Caryophyllia smithii Devonshire cup coral- Observation by North Devon Coast and Countryside Service. (Mermaids Pool)

Anguilla anguilla European eel (UK BAP)

Harbour porpoise *Phocoena phocoena (WCA 5, UK BAP)* and *Halichoerus grypus* Atlantic grey seals reported in Bideford Bay close to Saunton sands within estuary.

Centropristis striata Sea bass, Salmo salar Atlantic salmon (Spawning and nursery area)

Estuary important for birds including *Pluvialis apricana* Golden plover and *Pluvialis squatarola* Grey plover. Sanderlings over-winter on Saunton sands. (Coastwise)

Sea lamprey *Petromyzon marinus* (UK BAP)- Observation from North Devon Coast and Countryside Service.

Comment on proportion of relevant habitat in region represented in the proposed area

Large estuary north coast of South West peninsula. Significant and high quality natural mussel beds. Large areas of saltmarsh unprotected by SSSI but important for commercial and scientific interesting species.

Comment on viability and replication for species of conservation importance

High diversity of species within the estuary and estuary mouth of national importance. Highly mobile species use the area including European eel and Allis shad. Atlantic salmon and Sea bass use the area for spawning and as a nursery ground for juveniles. Important area for saltmarsh and other estuarine species and keeping pace with relative sea level rise.

Impacts, vulnerability and naturalness

The Estuary and estuary mouth has high recreational value resulting in human pressure including boat traffic and leisure activities. Peeler crab collection also takes place on the estuary which needs to be protected to avoid exploitation on a large scale as well as an increase in numbers of collectors. Moderate seine netting activity currently regulated by Environment Agency/SFC. The area may be subject to development associated with the Atlantic array offshore wind proposal. This may involve small capital and maintenance dredging. This can be a strong economic driver for the area and therefore accommodation will be made in the MCZ for this activity with strong controls.

Key information sources (requiring further analysis)

MNCR and seasearch data (Devon Biodiversity Records Centre, DBRC) Cetacean Recording Network data (DBRC) Marine recorder, Seasearch, OPRU. Observations from Coastwise.

Environment Agency Benthic and Fish surveys 2007 - 2009

Further work required

Further surveys of this area will be required to confirm species present and identify any new ones, especially within seagrass beds. Monitor impacts of peeler crab collection and visitor pressure.

Possible conservation measures:

Continued application of current SFC bylaws for bass, salmon and sea trout with possible whole year cover of licence arrangements.

Licensing arrangements for seine and drift netting inside the MCZ.

Mussel harvesting by hand and hand tools only.

Protection of saltmarshes and intertidal habitats outside of SSSI from damaging land use/land use change.

Controls for peeler crab tiling and exploitation through no further extension of areas and numbers of tiles.

Mooring limitations.

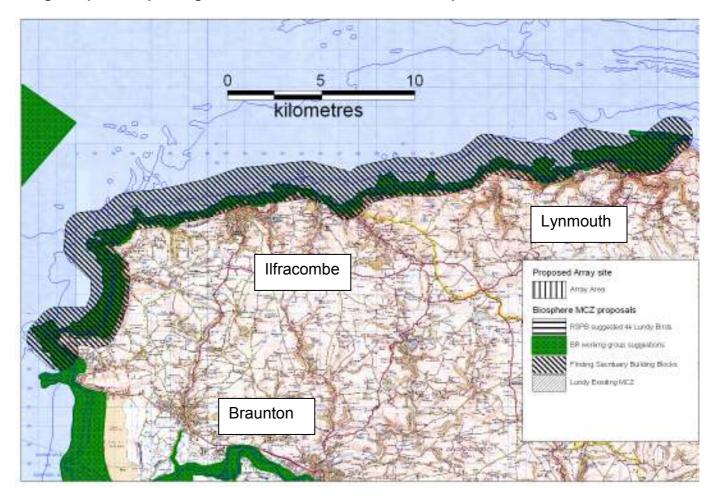
Houseboat limitations in so far as their impact through pollution and location on/near sensitive habitats. Safeguarding the total amount of intertidal area within the estuary from human induced changes and from sea-level rise.

Protection of sea bed substrates outside of the main shipping channels and berthing areas.

Location name: Down End Saunton to Foreland Point

Co-ordinates (West to East): 51.11903, -4.26892 to 51.24788, -3.78244

Rough map encompassing features of marine conservation importance:



Brief overview of area (including habitats and species)

Location Name and description:

From Down End Saunton to Foreland Point,.

From Down End to Morte Point the area includes 2 substantial sandy bays and rocky headlands that have been included in the North Devon Voluntary Marine Conservation Area.

From Morte Point eastwards, the coastline resumes a north-facing aspect, with rocky shores interspersed with small sandy coves backed by high cliffs. Many species reach the eastern limit of their distribution here, as a transition occurs between the open coast and the Bristol Channel. The area from Morte Point to Combe Martin has been identified by English Nature (1994a) as a Sensitive Marine Area (extending 2-3 km offshore) and in 1994 was also declared a Voluntary Marine Conservation Area. The rocky shores are moderately exposed to wave action and contain a variety of habitats. *JNCC Coasts & Seas UK*

Level of consensus within BR MCZ Group:

Unanimous

It is now noted that the Finding Sanctuary Steering group have also recognised this area and have extended it seawards slightly.

Broadscale habitats represented (estimated, needs to be from survey data):

- A1.1 High energy intertidal rock
- A1.2 Moderate energy littoral rock
- A1.4 Features of littoral rock
- A2.2 Intertidal sand and muddy sand
- A2.7 Intertidal biogenic reefs
- A3.2 Moderate energy infralittoral rock
- A4.2 Moderate energy circalittoral rock
- A5.1 Subtidal coarse sediment
- A5.2 Subtidal sand
- A5.4 Subtidal mixed sediments

Features of Conservation Importance represented

OSPAR/UK BAP habitats:

- Sabellaria alveolata reefs (UK BAP)
- Tide swept channels (UK BAP) Baggy Point to Come Martin (Various headlands)
- Subtidal sand and gravel (UK BAP) Ilfracombe
- Fragile sponge and anthozoan communities on subtidal rocky habitats (UK BAP)
- Intertidal boulder communities (UK BAP)
- Sheltered muddy gravels (UK BAP)

OSPAR/BAP/Wildlife & Countryside Act Schedule 5 species (not including highly mobile species or birds):

- Sabellaria spinulosa Ross worm (UK BAP)
- Eunicella verrucosa Pink sea fan (UK BAP/WCA 5 1981)
- Anguilla anguilla European eel (UK BAP)
- Sabellaria alveolata Honeycombe worm (UK BAP) Coastwise.
- Padina pavonica Peacock's tail (UK BAP) National Biodiversity Network (NBN)
- Palinurus elephas Spiny Lobster (UK BAP) and Anglerfish Lophius piscatorius (UK BAP) -Seasearch record on recent (2010) dive at Combe Martin.
- Balanophyllia regia scarlet & gold star coral (Nationally scarce species)
- Hoplangia durotrix Weymouth carpet coral (Nationally scarce species)
- Mesacmaea mitchelli policeman anemone (Nationally scarce species)
- Onchidela celtica (Cand NIMF)
- Asterina phylactica
- Anthopleura thalia

Additional rare, scarce and sensitive species present:

Caryophyllia smithii Devonshire cup coral

Haliclystus auricular Stalked jellyfish (UK BAP)- Coastwise observations include this species at Barricane and Downend, Croyde.

Hippocampus hippocampus Short-snouted seahorse has been recorded in this area but this is unconfirmed by recent investigations.

Halichoerus grypus Atlantic grey seals frequent Morte Point as a haul-out area. The area is important for a localised Harbour porpoise *Phocoena phocoena* (WCA 5 1981, UK BAP) population.

1978-1979 SWBSS North Devon survey- records of *Caryophyllia smithii* Devonshire cup coral, *Lophius piscatorius* Angler (Nerc 41, UK BAP) and *Solea solea* Sole (Nerc 41, UK BAP).

Comment on proportion of relevant habitat in region represented in the proposed area

A wide variety of biotopes present, able to support diverse communities providing good matrix. Significant for moderate energy intertidal on Bristol Channel.

Comment on viability and replication for species of conservation importance

The VMCA and extended area supports rich biodiversity and assemblages including nationally important species. The area is also important for mobile species, in particular Harbour porpoise, Grey seal and European eel. Extent of rocky habitats is ample for replication.

Impacts, vulnerability and naturalness

The seabed marine communities are vulnerable to mobile fishing gear and can damage the seabed especially in areas of softer bedrock. Pollution from a range of contaminants can cause acute and chronic effects to sub-tidal communities. Static fishing gear (crab, lobster, whelk pots) may cause localised damage as well as public pressure. Coasteering is frequently carried out.

Key information sources

These data sources will require further investigation and analysis for iteration 3.

MNCR and seasearch data (Devon Biodiversity Records Centre)

Cetacean Recording Network data (DBRC)

Raw data from surveys undertaken during the South-West Britain Sublittoral Survey in the 1970's (no regional report for North Devon).and personal observations (shore and subtidal) by Keith Hiscock.

Observations from Coastwise whilst conducting organised intertidal surveys and rockpool rambles in North Devon.

Voluntary Marine Conservation Area (VMCA)

National Biodiversity Network (NBN)

Further work required

Further surveys of this area will be required to confirm species present and identify any new ones which may extent the MCZ boundaries. It would also be advantageous to monitor the area for any change. Impacts of coasteering to be monitored. Code of conduct to be drawn up as a minimum requirement.

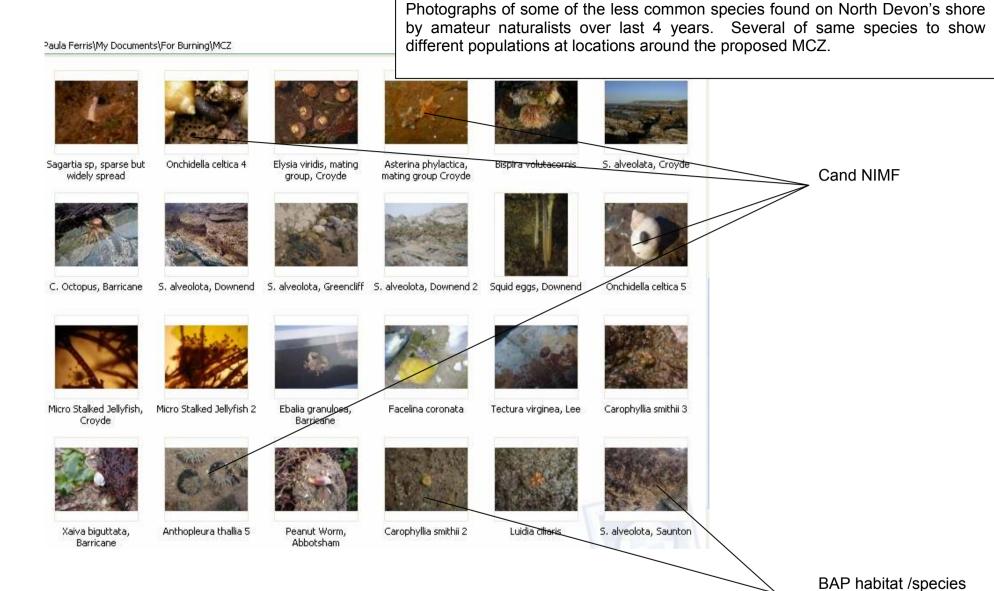
Possible conservation measures:

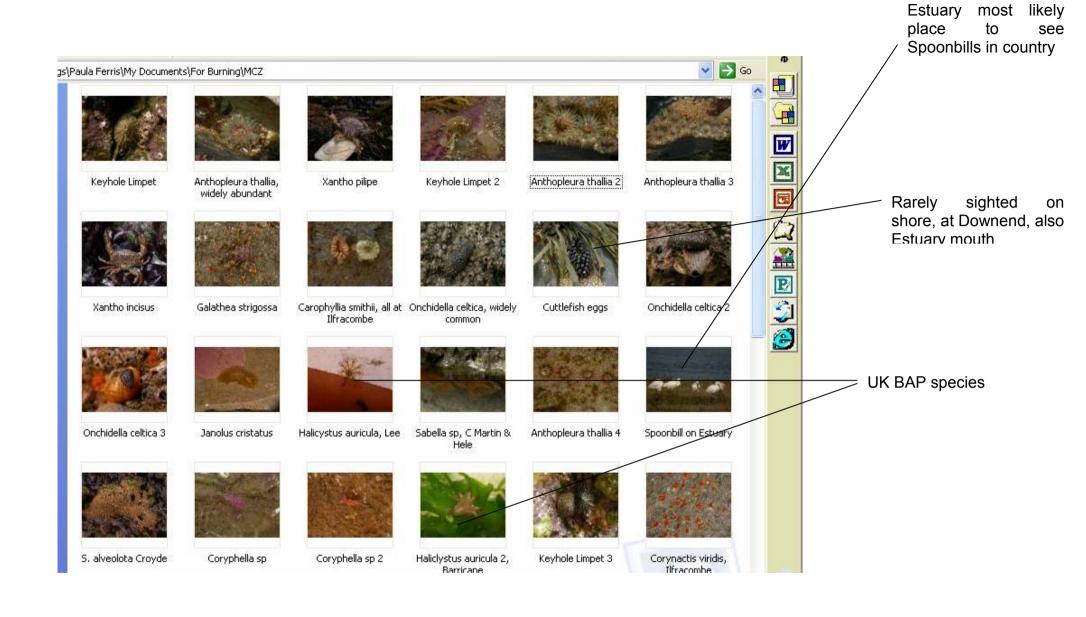
No mobile fishing gear in area.

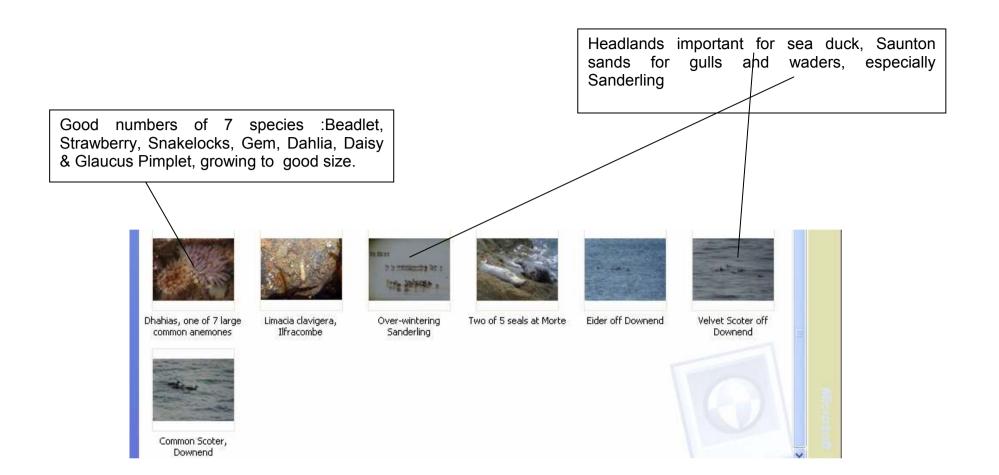
Monitor and limit coasteering as an activity that might be damaging intertidal encrusting species.

Education of public in regards to conservation.

Current levels of potting and angling permitted.







Location name: Morte Platform

Co-ordinates:

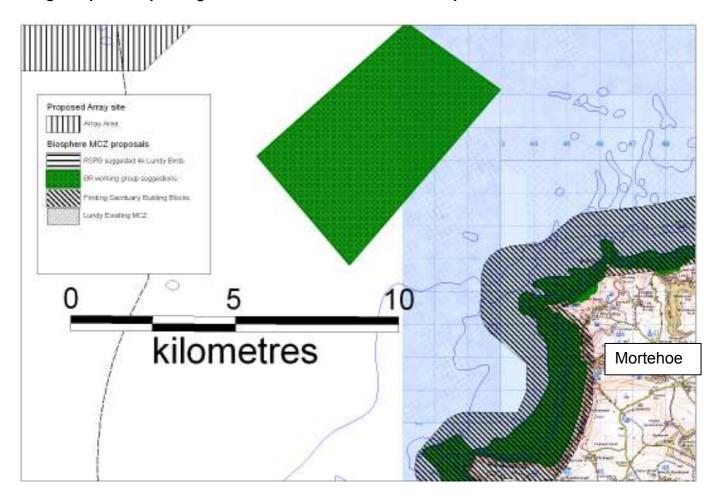
-4.355, 51.226

-4.292, 51.264

-4.251, 51.247

-4.313, 51.197

Rough map encompassing features of marine conservation importance:



Location Name and description:

Morte Platform

Brief overview of area (including habitats and species).

Highly heterogeneous and biodiverse patch. The area is thinly covered or exposed rock with pockets of sediment in the form of sand ribbons or ridges with mud in the troughs. 433 taxa have been recorded in this biotope. Assemblages of polycheate worm communities with *Electra pillosa* and *Hydrallmonia falcata* as the dominating colonisers. *Modiolus modiolus* has been found in the area, though not in reef forming numbers.

Level of consensus within BR MCZ Group:

Unanimous support. The site has been shifted from its original position and now straddles the known biotope and a low fishing activity area.

Broadscale habitats represented (estimated, needs to be from survey data):

A5.1 Subtidal coarse sediment

A5.2 Subtidal sand

A5.4 Subtidal mixed sediments

A5.6 Subtidal biogenic reefs (Mussel beds)

Features of Conservation Importance represented OSPAR/UK BAP habitats:

- Subtidal sand and gravel (UK BAP)
- Tide swept channels (UK BAP)
- Sabellaria spinulosa reefs (The outer Bristol Channel marine Habitat Study- samples from just outside of proposed area,)

OSPAR/BAP/Wildlife & Countryside Act Schedule 5 species (not including highly mobile species or birds):

• Sabellaria spinulosa Ross worm (UK BAP) * records from samples just outside the area.

Additional rare, scarce and sensitive species present:

• Polychaete rich communities. Biotopes recorded are scarce according to JNCC and NBN data.

Comment on proportion of relevant habitat in region represented in the proposed area

This habitat is peculiar to this region. The high biodiversity index value is due to the assemblage of coarse sediments, stones, sand ridges and mud troughs. It may be described better as a biodiversity hot spot. The mix of biotopes represented here is rarely represented anywhere else in the UK according to the National Biodiversity Network database.

Comment on viability and replication for species of conservation importance

The channel and Morte Platform is important for species on a national level including *Sabellaria spinulosa* Ross worm (UK BAP). The substrata provides a wide range of physical environments for species to colonise.

Impacts, vulnerability and naturalness

The seabed marine communities are vulnerable to mobile fishing gear.

Key information sources (requiring further analysis)

National Museum of Wales study: The Outer Bristol Channel Marine Habitat Study. National Biodiversity Network NBN).

Further work required

Further surveys of this area will be required to confirm species present and identify any new ones which may extent the MCZ boundaries. It would also be advantageous to monitor the area for any change and visitor pressure impacts.

Possible conservation measures:

Mobile gear not allowed.

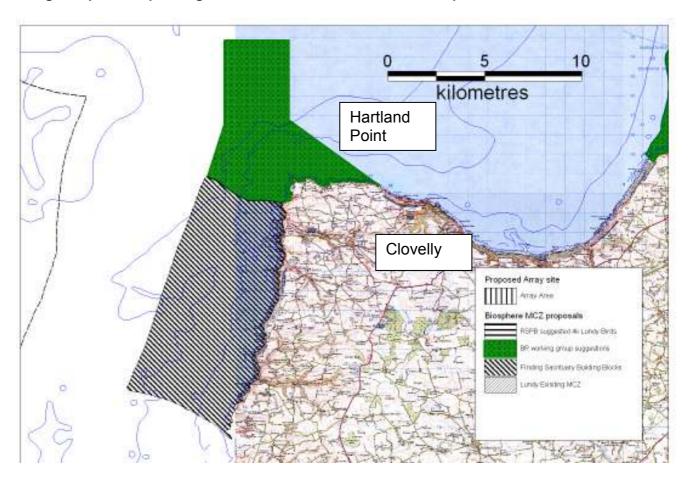
Current levels of potting and angling accepted.

Location name: Hartland Point (including offshore) to Chapman's Pool, circa littoral and foreshore east to Chapman Rock/Mouth mill

Co-ordinates:

51.083915, -4.578410 51.084953, -4.530933 51.045354, -4.576138 51.048240, -4.529028 51.019158, -4.460317 51.021, -4.5882 51.01, -4.533 51.023, -4.526

Rough map encompassing features of marine conservation importance:



Brief overview of area (including habitats and species).

Location Name and description:

Hartland Drop off, circa littoral and foreshore east to Chapman Rock/Mouth Mill, wrap around the west coast of the Hartland Peninsula to join the building block iP4. i.e the MCZ will include iP4 and the Hartland Drop off.

An area of high energy, low lying rocky reef, with sand and gravel in between rocky channels. Sublittoral communities dominated by Mussel beds *Mytilus edulis*, which is typical of this habitat. Hartland Point is an important nursery ground for juvenile edible crabs (*Pawson 1995*). Devonshire cup coral *Caryophyllia smithi* occasionally found at Hartland Point attached to undersides of pebbles in low

and sub littoral zones to 10m. MSC dissertation, *Andrew Jenkins 1998*. Strong tide swept headland and steep ground/cliff. Encrusting fauna.

Level of consensus within BR MCZ Group:

Unanimous

Broadscale habitats represented (estimated, needs to be from survey data):

A1.1 High energy intertidal rock

A3.3 Low energy infralittoral rock

A4.1 High energy circalittoral rock

A5.2 Subtidal sand

Features of Conservation Importance represented OSPAR/UK BAP habitats:

- Tide swept channels (UK BAP)
- Subtidal sand and gravel (UK BAP)

OSPAR/BAP/Wildlife & Countryside Act Schedule 5 species (not including highly mobile species or birds):

- Sabellaria alveolata Honeycombe worm (UK BAP)
- Sabellaria spinulosa Ross worm (UK BAP) Unconfirmed record from Seasearch survey 2010.
- Red throated divers and wintering grebes/diving birds (RSPB)

Additional rare, scarce and sensitive species present:

- Caryophyllia smithii Devonshire cup coral MSC dissertation, Andrew Jenkins 1998.
- Bifurcaria bifurcata (nationally rare and restricted to the South West).
- Seasearch Record of *Eunicella verrucosa* Pink sea fan (UK BAP/WCA 5 1981) further around the Point at Knapp Head.

Comment on proportion of relevant habitat in region represented in the proposed area Representative of the area, important transition from Atlantic to Bristol Channel and cold/warm water fronts.

Comment on viability and replication for species of conservation importance

The area, with its low lying reef and tidal channels, support species of national importance including Sabellaria alveolata Honeycombe worm (UK BAP) and unconfirmed Sabellaria spinulosa Ross worm (UK BAP). The area is important for over-wintering birds including Red-throated diver.

Impacts, vulnerability and naturalness

The seabed marine communities are vulnerable to mobile fishing gear. Potting is frequently carried out and recreational angling. These activities are not perceived as causing a problem. Hartland Point is a favoured spotting location for cetaceans and seabirds. Sunfish regularly recorded in this location.

Key information sources (requiring further analysis)

Verbal Seasearch data via Sally Sharrock

RSPB survey data.

MNCR and seasearch data (Devon Biodiversity Records Centre)

Personal observations from Coastwise and North Devon Coast and Countryside Service.

Further work required

Surveys of this area are imperative, when conditions allow to confirm presence of nationally important species within this area.

Possible conservation measures:

No mobile gear.
Allow current levels of potting and angling.
No inappropriate coastal defences.
Monitoring of disturbances to loafing birds.

Location Name: Lundy (was area 9)

Co-ordinates:

51.235, -4.722

51.238, -4.620

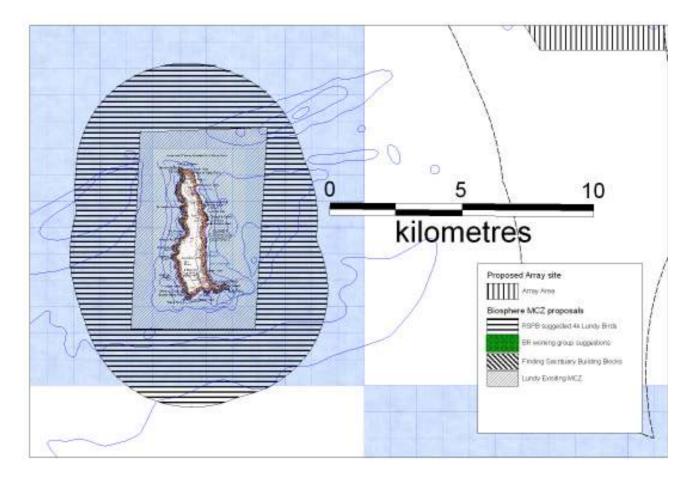
51.238, -4.610

51.130, -4.712

Location and description: 4 Km buffer around Lundy.

Lundy is currently the UK's on MCZ and has a long provenance of beign researched and designated. It is a biodiversity hotspot.

The group considered an extension of the Lundy MCZ beyond its current boundaries. Given the sensitivities in the area and the fact that the Lundy Management group did not seem to be considering a physical extension of the reserve, the proposal was not followed through. The MWG considers that Lundy is doing a very good job as it is and considers it as being a vital part of the North Devon suite of reserves. However the RSPB have pointed out the nationally important cliff nesting birds of Lundy including the Manx Shearwater. It is their suggestion that a 4 km control zone is applied around the island to ensure that "loafing" or resting birds are not disturbed by fast craft. Such a control would be originally through information measures but if it became a problem, a bylaw could be created.



Brief overview of area (including habitats and species).

Highly heterogeneous and biodiverse area. The area is thinly covered or exposed rock with pockets of sediment in the form of sand ribbons or ridges with mud in the troughs. Underwater cliffs, with various sponges, pink sea fans, cup corals. Red Band fish in the softer sediments.

Level of consensus within BR MCZ Group:

Unanimous support.

Broadscale habitats represented (estimated, needs to be from survey data):

A5.1 Subtidal coarse sediment

A5.2 Subtidal sand

A5.4 Subtidal mixed sediments

A5.6 Subtidal biogenic reefs (Mussel beds)

A4.1 High energy circalittoral rock

Features of Conservation Importance represented

OSPAR/UK BAP habitats:

- Subtidal sand and gravel (UK BAP)
- Tide swept channels (UK BAP)
- Submerged or partially submerged sea caves
- Sabellaria spinulosa reefs (The outer Bristol Channel marine Habitat Study- samples from just outside of proposed area,)
- Grey Seal Halichoerus grypus
- Crawfish Palinurus elephas

OSPAR/BAP/Wildlife & Countryside Act Schedule 5 species (not including highly mobile species or birds):

Sabellaria spinulosa Ross worm (UK BAP) * records from samples just outside the area.

Additional rare, scarce and sensitive species present:

- Pink Sea fan,
- Polychaete rich communities. Biotopes recorded are scarce according to JNCC and NBN data.
- Sea bird colonies; inc Manx Shearwater, Puffin,

Comment on proportion of relevant habitat in region represented in the proposed area

This habitat is peculiar to this region. The high biodiversity index value is due to the assemblage of different substrates. It is a recognised biodiversity hot spot.

Comment on viability and replication for species of conservation importance

Marine biota already recognised in current MCZ. Highly studied area for its marine life.

Impacts, vulnerability and naturalness

The seabed marine communities are vulnerable to mobile fishing gear.

Sessile features prone to erosion from anchor lines etc

Loafing seabirds prone to disturbance from fast craft

Key information sources (requiring further analysis)

National Museum of Wales study:

The Outer Bristol Channel Marine Habitat Study.

National Biodiversity Network (NBN).

JNCC Data,

Natural England Data

Lundy Field Society Data

RSPB data

Further work required

None identified

Possible conservation measures:

All those currently applied at Lundy within their current areas of the MCZ including the No-take zone as a Reference Area with the addition of information and possible bylaws for controlling fast craft within 4 km of the shore of Lundy.