

**NWIFCA Technical, Science and Byelaw
Committee**

1st November 2016: 10:00 a.m.

**AGENDA
ITEM NO.**

7

HEYSHAM FLAT – PROTECTION OF SABELLARIA ALVEOLATA REEF

Purpose: To consider management options to make the size mussel fishery compliant with Habitats Regulations Assessment (HRA) with regard *Sabellaria alveolata* reef protection.

Recommendations:

- 1. An exclusion zone be included in seed and size mussel fishery HRA and written into the Mussel Management Plan.**
- 2. Further consider byelaw protection options**

Background:

1. Protection of this reef was discussed at the August TSB and September NWIFCA. Protection is required to make the size mussel fishery Habitats Regulations Assessment (HRA) compliant. The reef area from historical data prior to 2012 is shown in Fig 1,
2. For seed mussel fisheries an exclusion zone is included in the authorisation to fish covering the area from mid to lower shore of the main skear. This has proved effective for many years. The exclusion zone used up to 2013 is shown in Figure 2. In 2014 repeated in 2015, a different exclusion zone was authorised and pegged out on the skear to protect the reef but allow passage to Knott End skear (Fig 3).
3. There is continual competition between mussels and honeycomb worm on the skear. During winter, worms tend to proliferate but mussel recruitment (generally from April onwards) often smothers the reef under mussel mud. When mussels and underlying mud is washed out in autumn the cycle repeats. Thus *S. alveolata* reef is an ephemeral feature that undergoes cyclical decay, recruitment and re-building.
4. A recent changing feature of Heysham is the extent of mussel stock persisting over winter on the bottom skears and growing to size. In the past size mussel fisheries did not occur. However in 2015 and 2016 in early spring there were size mussel on Knott End Skear fished on large spring tides.
5. A problem of the exclusion zone over the last 2 years was access to the seed and subsequently size mussel stock past the reef and on to Knott End Skear over Dallam Dyke (passable on big tides in recent years).
6. This year the condition of the reef deteriorated beyond the usual level and was the worst recorded in nine years. The majority of the reef was covered with dense mussel and all *Sabellaria* died off. After discussion at BMWG and the Authority an HRA to open the seed mussel fishery with no exclusion zone this year was proposed. However, concerns were expressed so the site was re-visited. Some dead reef was now exposed and a small area of live worm structures was present to the north of the skear.

7. The formal NE HRA advice was that underlying 3-D reef structures and live colonies must be protected from fishing and quad bike use even though the surface of the reef may be smothered with no live worm colonies. Old reef aids recruitment as *S. alveolata* larvae require old adult cement in order to settle out of the water column. Therefore a new larger exclusion zone was incorporated into the 2016 authorisation (Figure 4). This led to some compliance issues dealt with by the Enforcement Team.
8. Under the Defra Revised Approach to EMS Management all fishing activity including size mussel fisheries has to undergo an HRA. A draft HRA has been discussed this with NE, and earlier advice confirmed to protect the reef from fishing and trampling damage. TSB in August agreed that an exclusion zone is required in the HRA to prevent further debate on the clear conservation advice. The area has been mapped over many years and is clearly defined.
9. Fishers and buyers disagreed at BMWG, asking for evidence that fishing pressures damage the reef and worm recruitment. They stressed that fishing is now excluded from a large area of the best mussel. The point was made that prior to 2005, there were no assessments and size mussel fishing did not damage the reef, which re-built successfully each year.
10. The skear changes monthly. Both the worms and the mussel are opportunistic and colonise available space including bare cobbles. Mussel recruitment occurs continually over several months and can rapidly bury reefs. It then becomes difficult to map the area of live worms to protect.
11. Gatherers require a means to access Knott End skear that does not involve traversing over the main skear area.

Proposal:

12. Size mussel fisheries continue at Heysham but are now subject to HRA. An exclusion zone be included in seed and size mussel fishery HRA and written into the Mussel Management Plan as a long term measure. The exclusion zone should reflect the main historical reef area and other areas considered vital by NE for the health of the reef.
13. A track be defined annually in consultation with BMWG and NE around the north of the skear for fishers to access Knott End skear. The track must take account of safety as mussel mud can be deep and soft. The extent and condition of the worms on this track be monitored by NWIFCA and NE to provide evidence of any damage to reef by ATV.
14. For now, fishers will be asked to comply with the exclusion zone as good practice, noting that if the reef is damaged by fishery related activity, the fishery could be considered non-compliant with the HRA and fishing would have to be legally controlled.
15. A temporary closure is immediately introduced under Byelaw 13A(1) as a fisheries management measure to protect the reef. This closure would serve to show that the Authority considers the reef must be protected urgently.

Options for long term regulation

16. For the future, there are 2 byelaw amendment options:
 - I. Amend Byelaw 6 to include a new exclusion zone for mussel hand-gathering (as was done for sea grasses in Walney Channel).
 - II. Include the exclusion zone in an amended Byelaw 3. This could give greater flexibility for amending the areas according to future needs using a flexible permit approach.

17. If these options are considered inadequate, a full stand-alone byelaw could be put in place.

Comments from TSB Member Dr Emily Baxter for WLT, following previous discussions

1. It appears the only option available at the current time is to secure a voluntary agreement to protect the reef area or to implement an emergency byelaw, although there would be a case to say that this could have been reasonably foreseen. I do have questions about how successful a voluntary agreement may be given the compliance issues that occurred with the derogation for the seed mussel fishery in August.
2. The North West Wildlife Trusts would support reviewing Byelaw 6.
3. Update the extent of the *Sabellaria* reef closed area for Heysham Flat, if appropriate, and only if the decision is evidenced with survey data and appropriate buffers to support any changes. On plotting the data it may well be clear that there is an area that could provide an access route for the hand gathered fisheries. However, I don't feel that allowing an area of reef to be cleared to give access down to the lower skears is an option that would be compliant with the legislation.
4. Include provisions for a closed area over the *Sabellaria* reef to hand gathered fisheries (size and seed) on Heysham Flat which would be an appropriate measure to ensure action is taken on amber interactions within MPAs due to the potential damage caused by quad bikes, trampling and raking.
5. Due to the points mentioned above, and in order to make sure the Byelaw is fit for purpose in the future, we feel that it would be beneficial for the Byelaw to be reviewed/re-written as a flexible permitting byelaw, allowing maps to be amended more easily and for new sites to be added as and when necessary.
6. From our perspective, reviewing Byelaws 6, 3, and 11 (dredging) would go the furthest in making sure that the NWIFCA have adequately assessed the fisheries in MPAs within the District.

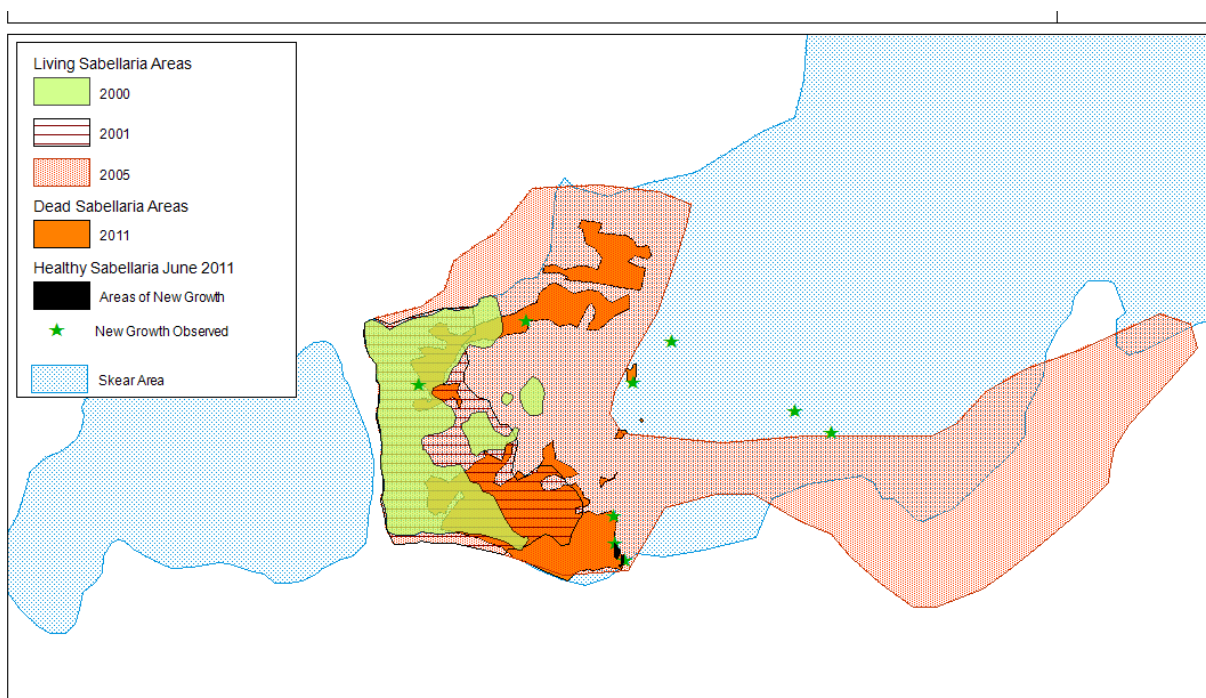


Fig. 1. Extent of *Sabellaria alveolata* reef from historical data up to February 2012.

AUTHORISED AREA FOR SEED MUSSEL HARVESTING AT HEYSHAM FLAT SKEAR, MORECAMBE, AUGUST 2013

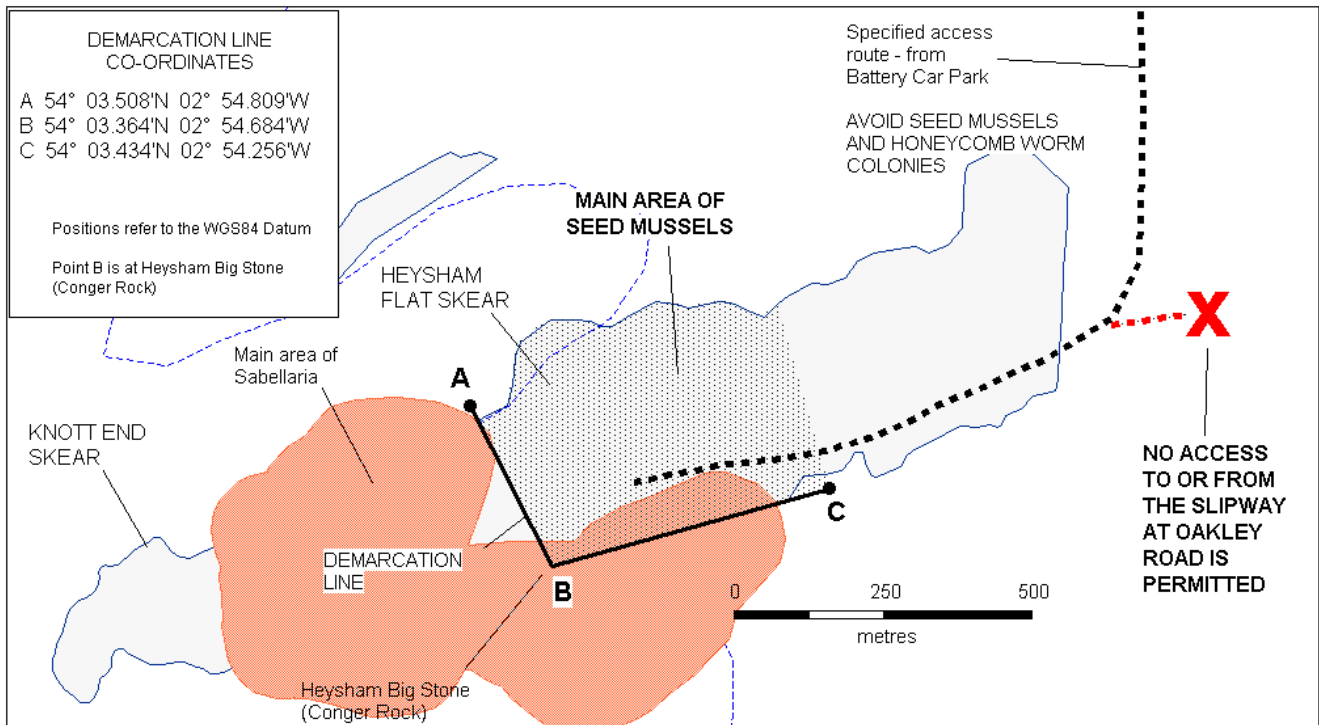
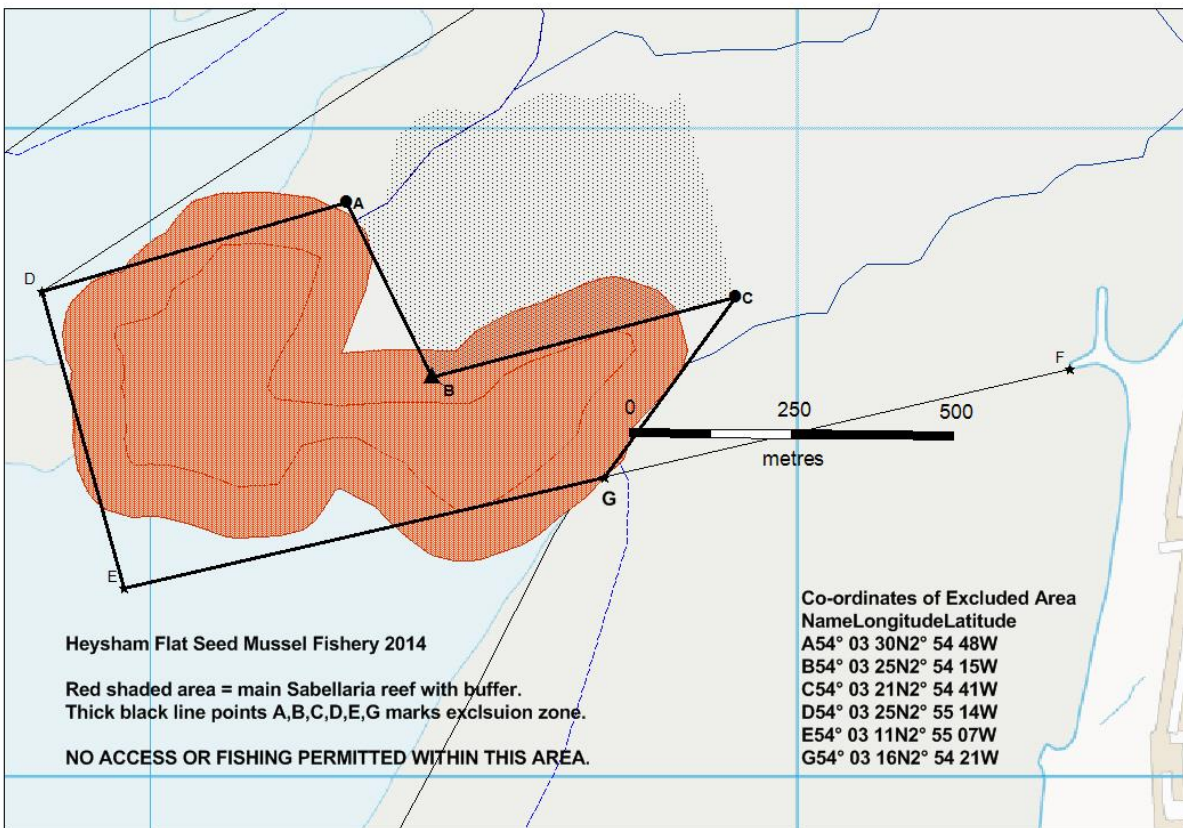


Fig. 2. Reef Exclusion zone for the seed mussel fishery at Heysham Flat up to 2013.



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Fig. 3. Exclusion zone authorised in 2014 and 2015 – gatherers traversed the main skear to Knott End skear via the area just north of A-D.

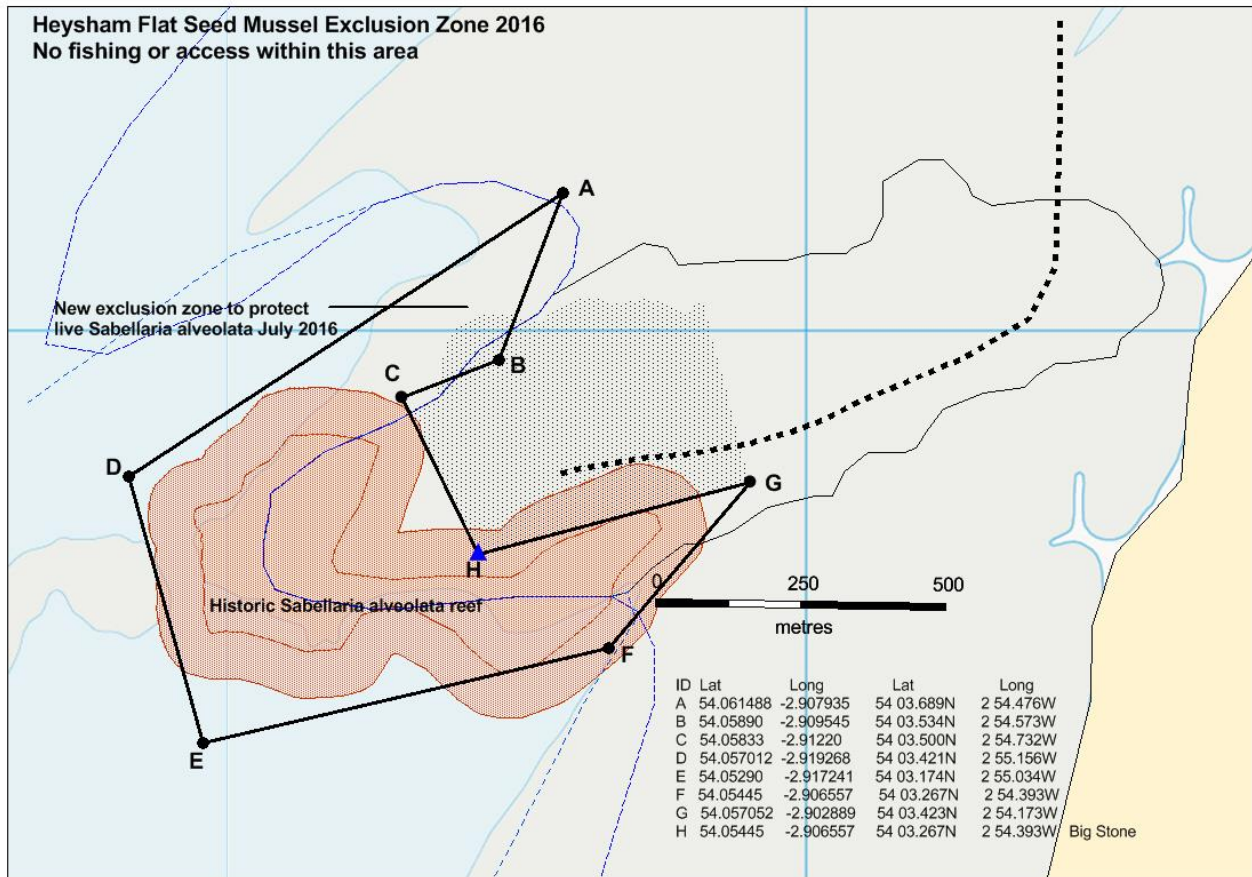


Fig. 4. Exclusion zone for 2016 seed mussel fishery.

Senior Scientist & CEO
 23rd October 2016