

**NATIONAL MARINE BIOLOGICAL AQC SCHEME / BEQUALM**  
**Teleconference Meeting 07/06/2012**  
**Meeting minutes**

**Attending:** Tim Mackie (TM, Chair, NI EA), David Hall (DH, Contractor), Joe Silke (JS, Marine Institute Ireland), Raphael Salas (RS, Marine Institute Ireland), Clare Scanlan (CS, SEPA), Jessica Haapkylä (JH, Technical Secretary SAHFOS),

**Apologies:** Mandy Prior (MP, Finance Manager, EA) Myles O'Reilly (MoR, SEPA), Keith Cooper (KC, CEFAS), Carol Milner (CMi, Contractor representative), Claire Mason (CM, CEFAS), Gavin McNeill (GM, AFBI)

## 1. Last Meeting Actions

### 1. Priorities paper outcomes from HBDSEG meeting

**Action: MP** to send email from JNCC contact and David Trigg at Staffordshire University to Jess. *Done*

**Action: TM** will circulate the minutes of the last HBDSEG meeting. *Done*

### 2. PSA

**Action: CMa** gets in touch with DH about 'LinkedIn'. Has not been in contact but the 'LinkedIn' is simple enough to do.

### 3. Benthic Invertebrates

**Action: DH** sends out a reminder for the labs that have not submitted MB or OS samples/data. *Done*

**Action: DH** will approach Ruth to comment on additional species that are not in current Experts' workshop guide. *Done*

### 4. Macroalgae

**Action: CS** to update the Committee on macroalgae/seagrass and rocky shore reverse ring tests. *Done*

### 5. Epibiota

**Action: KC** to ask if and how Dave Limpenny is dealing with the epibiota quality issue. *Done*

**Action: TM** will ask the HBDSEG to develop a NMBAQC timeline for the year (deliverables from each programme).

**Action: TM** will talk about the epibiota component to Roger Proudfoot. *Done*

### 6. Fish

**Action:** getting a new contact person for the fish component.

**Action: DH** to investigate the problem of mullet identification. *Done*

### 7. AOB

**Action:** Mark Charlesworth wanted feedback on the web site: 'Marine Species of British Isles and adjacent seas'. TM will send JH the email for the person replacing MC. *Done*

**Action: All** to review the Application form for Year 19 and send it to Jess. *Done*

## Meeting

### 1. Priorities from HBDSEG

A temporary chair for the NMBAQC will be nominated in the next HBDSEG meeting on 4-5<sup>th</sup> of July 2012. Tim will take up his day job for the next 3 months.

**Action:** HBDSEG has requested to review the zooplankton monitoring standards. *Done* (JH is working on this with SAHFOS).

HBDSEG priorities remain the same as before i.e.:

- 1) Epibiota ring test development
- 2) Biotope classification
- 3) Annual report for NMBAQC
- 4) Timeline for NMBAQC (**TM action**)

### 2. Phytoplankton update

JS: Considerable amount of work has been done.

RS: Have just finalised the registration for the inter-comparison test: 52 participants, 28 laboratories. Mostly from Europe but also a couple of labs from North Africa, one from Australia and one from South America. So, the programme is still European but going global. The exercise has become more visible, it has been published through the IOC web site. We are preparing samples this month and we are sending them by the end of June. We will get the results back by August. In September, the online quiz will take place. There will be a workshop in November (in Denmark) that will have a more practical side to it involving using microscopes and learning different techniques. The phytoplankton report will be ready by the end of the year. It is a challenge to increase the sample numbers and culture materials. It will demand more work this year to prepare samples.

TM: Are you using the IOC format for the online quiz?

RS: Yes, we will try to improve some of it and perhaps make the test a bit harder. The online quiz is not only ID but it includes particular questions on taxonomical characteristics of the sample. It is an add-on to the samples we send out that have both ID and enumeration in them so the analysts get scored on their ability to identify the species in the samples and also to calculate their abundance.

JS: Irene from Marine Lab Scotland has sent a species list to the framework people, re-classification of species, up-to-date names of species, now everyone is working from the same list of species.

JS: Jess sent me an email about the phytoplankton Statement of Performance that we give out after the inter-comparison test. We have designed our own.

TM: There is no need to standardise these.

DH: The ones you have now are from year 17. Could we make these the same format for each scheme component?

**Action: JH** to copy statement of performance to CS. *Done*

TM: Just before you go, Joe, HBDSEG wants to include zooplankton. Do you have expertise in your institute?

JS: No, we do not work on zooplankton in itself, we do fish larvae. Zooplankton tends to be very variable due to the variety of things you get in a sample.

TM: We need to review monitoring standards for zooplankton.

CS: Kathryn Cook from Marine Scotland?

JS: Good suggestion, she is part of the IOC working group. Maybe email Kathryn about it?

**Action: CS** will email her. *Done*

### 3. PSA

Yr17 (2010/11)	Annual Report on Scheme website.
Yr18 (2011/12)	PS40 & PS41 reports on website. PS42 & PS43 report writing in progress (11 out of 12 returns).
Yr19 (2012/13)	PS44 & PS45 source material in-house; initial preparation ongoing.

### 4. Benthic Invertebrates

Yr17 (2010/11)	All late LR & OS returns have been completed, reported and returned. 17x OS with external auditor. SoP sheets created (interim copies for ext OS participants) Annual report in progress; <b>DH will produce interim report, i.e. without external OS data, for TM to present at next HBDSEG meeting.</b>
Yr18 (2011/12)	All exercise deadlines have passed. RT41 interim results circulated; <i>Ophelia</i> & <i>Marenzelleria</i> external advice not completed yet; ring test bulletin will be created stating current taxonomic status. RT42 interim results circulated; ring test bulletin in progress; problem taxa = <i>Polyphysia crassa</i> juv. (21% of

all specific errors), *Ecrobia ventrosa* (16%) & *Onoba aculeus* juv. (13%).

MB19 (natural smps from southern North Sea) exercise completed and report will be on website today; first exercise stating NMBAQC procedures to be followed.

LR16 & OS47-49 sample/specimen processing ongoing; 10 out of 15 LR sets received; 69 Own Samples received; 21 reported & returned, to date.

#### OTHER

OS CSEMP Report 1999 to 2008 completed & posted on website.

Beginners' workshop completed (26-30<sup>th</sup> March) @ Thomson Unicomarine's laboratory; good feedback from participants; certificate of attendance & cd-rom of papers, etc. have been circulated.

Experts' workshop planned (5-9<sup>th</sup> November) @ Dove; update on sign up required.

## 5. Macroalgae

### *Rocky shore Macroalgae Identification*

MP (by email): Mandy has asked Emma Wells of Wells Marine to run the Macroalgae component (both rocky shores and opp. mac/seagrass) again for Year 19.

CS: The exercises have all been completed; 2 labs subscribed for it with a total of 11 participants. The results were good. People are getting better at what they are doing. The biggest question is how the ring test should be scored: passed/failed or some other measure? Are there any guidelines regarding this?

TM: Ring tests used to be marked 'passed' or 'failed'. This way of marking makes people's professional pride emerge since there is a competitive edge to the test. Then the tests started to be run as a training exercise.

DH: How hard are the tests? It's a great exercise once I have the results. We score them 1) high, 2) medium, 3) low.

CS: We do this for macroalgae biomass but not for rocky shores.

TM: It's photo ID so everyone is presented with the same pictures. It should be a more standard result than for the benthic one. The use of the statistical method 'Z-score' will show how hard the test was. If everyone's failed at one point, you know the question was too hard.

DH: If you want to use pass/fail, you need to present all the standard ID features.

TM: You could apply a Z-score on the rocky shores and see how it pans out.

CS: Yes, it's something we've been talking about.

DH: Perhaps because the benthic component is not pass/fail, we get lots of participants. Remember that Z-score does not work well with low numbers.

CS: We had 6 labs and 11 participants.

TM: You could up your numbers with 2 when running the Z-score.

**Action: CS** will double-check with Emma about Z-scores.

TM: Individual participant scores/returns could be identical. Consultancies would come up with one opinion from many people. Perhaps the test could be scored 'deemed satisfactory'?

CS: In that case, would you send a certificate to the participants?

TM: There would be a certificate of participation and they could get the Z-score number on it, i.e. a 'de facto' fail but not a real 'fail'.

CS: This has been useful, thank you.

TM: Would be interesting to see how Z-scores would be with regards to old data. Have you talked with Emma?

CS: No yet.

*Macroalgae and seagrass percentage cover ring test*

CS: 13 laboratories participated, 12 completed the exercise (10 government agencies, 2 consultancies), 37 participants. Emma had one assessment in the field, also did it by using image analysis. She worked the Z-scores out: 1) calculated the mean of participants, 2) calculated Z-scores relative to image analysis (most mistakes were observed in this one). Overall the scores were quite good, people were passing in general. Although some quadrats had more variation within them. It was worse with seagrass, because it's more patchy and it's harder to assess. There was a low overall success rate although not too bad. Need to look more in detail. Could do with a workshop on macroalgae, particularly on seagrass? The questions to solve regarding the workshop are: 1) timing, 2) funding

Is it for the participants to fund this or does the money come from NMBAQC?

TM: self-funding

CS: There is definitely a need for a workshop.

TM: Do you mean inter-tidal or subtidal stuff?

CS: It's all inter-tidal, the EA are developing a tool for sub-tidal seagrass work which is sonar-based.

TM: Has anyone done any aerial work on seagrass?

CS: Yes, we are planning to do that. But a licence is required in order to be able to do it.

*Biomass ring test for macroalgae only*

CS: We didn't get so many participants. 9 labs returned the results (government agencies), one did not.

TM: Perhaps send a reminder to the one that didn't return it.

CS: I'll check that.

TM: How did the test go?

CS: There was lots of variation, some big outliers. There is the training issue. I will have to see when would be a good timing and what would be a good site that would have both macroalgae and seagrass.

**Action: CS** to check if the macroalgae test is OK on the web site. *Done*

## 6. Epibiota

JH: I met up with Emma Verling in Peterborough on the 30<sup>th</sup> of May to discuss how to proceed with the Epibiota component. We discussed about writing up a 'Best Practice Guide', similar to the one that exists on PSA. Dan Bailey from JNCC is also keen to help out with this. We need some guidance from the NMBAQC Committee on this. First of all what kind of ring test would you like us to develop (specialist or general)?

TM: It needs to be fit for purpose. It needs to be divided in the following way: 1) Physical/sediment, 2) Biotope, 3) Species abundance, 4) Condition assessment. The same video can then be used for several purposes.

JH: There is the question of intellectual property since the test was generated by Envision Mapping. I am wondering if we will be able to use their material? It would be a shame to have to develop everything from scratch since so much work (and money) has been spent on this previously.

TM: I can't see why we wouldn't have access to the material. As far as I know there was no time limit on the contract. The problem we may have is to try to make people sign up for an expensive component.

JH: What about the Best Practice Guide?

TM: Relatively tight guidelines already exist from MASH and ISO 10, QA video stuff.

DH: We have been doing MCZ through CEFAS. We have had 6 people constantly looking at videos. Maybe send Mark Curtis from CEFAS an email?

TM: How did CEFAS develop their questionnaire? Is it geared for species or for biotope?

DH: I think for biotope but I haven't been involved in it.

TM: The easiest way to do the Epibiota ring test is to burn a disk with 1 minute video clips and ask people to score it under 1-4:

- 1) Physical
- 2) Biotope
- 3) Species abundance
- 4) Condition assessment

DH: Going through CEFAS is the way to do it. You can get wider participation.

CS: Tim, we do a lot of assessment of fish farms.

TM: We do as well. Could include fish farm data on the CD, any source of data can be put on the disk.

DH: Supervision of the video analysis gives us the confidence that we can trust the results. Getting through the video was difficult (50 hours).

TM: We could generate standard video shots for reference for example 'high status kelp forests'. We should make 1 min. video snaps on a disc.

**Action: TM** will give Ed from CEFAS a ring to see what they are doing.

## 7. Fish

MP (by email): Mandy has checked with Roger Proudfoot as to whether Adam Waugh can fill this post and the answer is NO. Adam will however deal with outcomes of fish tests to make improvements within the Environment Agency – so he would still need to receive reports as before.

The replacement of the fish person?

TM: Trevor Harrison was very reluctant, by default because of inter-calibration issues. Keep Adam Waugh on books.

## 8. AOB

MP (by email): Statement of Performance for macroalgae component (and others)

Mandy has had an enquiry via Emma Wells as a participant has asked for confirmation (certificate) that they have passed the macroalgae tests – can these be developed? And should they be developed for other components fish etc.?

DH: Joe Silke's copied the same format. The way forward is to break them up with year 18 written on them.

**Action: JH** Statement of Performance for all components.

## WORMS

DH: Commercial concern since we update our list and it is very robust. It has been done in a more professional way than WORMS. I do not want to give all the credits to WORMS, we have paying customers that use Unicmarine list.

Our next meeting will be held on 4.10.2012 as a teleconference.