# Circle  Description automatically generated with medium confidenceNE ATLANTIC MARINE BIOLOGICAL AQC SCHEME COMMITTEE MEETING

**Agenda****23rd April 2024 1000-1245**

**Confirmed Attendees:** David Johns (DJ, MBA, Chair), Graham Phillips (GP, EA, Finance Manager), Claire Mason (CM, CEFAS, PSA Technical Manager), Myles O’Reilly (MOR, SEPA, Benthic Invertebrates Technical Manager), Gillian Annett (GA, DAERA, Macroalgal Technical Manager), Claire Taylor (CT, MBA, Technical Secretary), Jim Ellis (JE, CEFAS, Fish Technical Manager), David Hall (DH APEM Benthic Administrator), Matt Green (MG, NRW, Marine Monitoring Ecologist), Lydia McIntyre-Brown (LMB, APEM Ltd, PSA administrator), Georgina Brackenreed-Johnstone (GBJ, APEM Ltd, Macroalgae administrator), Michael Redford (MR, Ocean Ecology, Contractors Rep (stand in for Ross Griffin) and Debbie Walsh (DW, APEM Ltd, Fish Administrator).

**Apologies:** James Albrecht, Rafael Salas

|  |  |  |
| --- | --- | --- |
| 1. **Last Meetings Actions** (summarised below on the agenda)
 |  | ALL |
| 1. **Minutes of the last meeting**
 |  | CT |
|  Approval of November meeting minutes |  | DJ |
|  |  |  |
| 1. **Epibiota update**
 |  | JA |
|  |   |  |
| 1. **Phytoplankton update**
 |  | RS |
|  |  |  |
| 1. **Priorities to HBDSEG**
 |  | DJ |
|  |  |  |
| 1. **PSA update**
 |  | CM/LMB |
|  |  |  |
| 1. **Benthic Invertebrates update**
 |  | DH/MoR |
|  |  |  |
| 1. **Macroalgae update**
 |  | GA/GBJ |
|  |  |  |
| 1. **Fish update**
 |  | JE/DW |
|  |  |  |
| 1. **Zooplankton update**
 |  | tbc |
|  |  |  |
| 1. **AOB**
 |  | ALL |
| 1. **Contractor Questions**
 |  | RG |
| 1. **Finance update\* Confidential**
 |  | GP |

1. **Last Meetings Actions**

**Ongoing:**

**Benthic/Macroalgae:**

MoR and CT have revamped Fish and Benthic Inverts literature page, adding unpublished keys and MoR volunteered to do the same for Macroalgae. Action: MOR to scan in relevant documents (~20 Macroalgae ) and CT to upload onto website, **update complete.**

**Priorities to HBDSEG:**

**eDNA:**

There was much discussion over eDNA and how would this fit our remit. As there has been a big surge on this technique should it form another component of NMBAQC though how would it sit? Work is currently being undertaken using this technique at Scottish fish farms (MOR). Action: CM to put DJ in contact with Vera Fonseca at Cefas who is leading their end (DONE), maybe worth sending an invitation to next committee meeting. MW advised some ICES groups are looking into this – Action DJ to chat to Sarah Peaty (EA)/JE to contact eDNA working group. **Update – this has been discussed at HBDSEG and with experts at MBA. There are lots of groups/projects looking into best practice at present. Action: DJ to find out project details aside from MARCOBOLO.**

**Actions from last meeting:**

**PSA:**

Guidance to be updated following on from workshop. Action: CM to implement this prior to next NMBAQC committee meeting (likely to be March 24) **update, this is ongoing.**

**Benthic - TDP**

The committee congratulated DH and team regarding work on TDP. This is a ‘live’ document and would be useful to review annually (created August 2023) with version control Action: MOR, **update to review around the time the contract is up for renewal. TDP will also have version control.**

1. **Minutes from the last meeting** - approved
2. **Epibiota Update Coordination of the Big Picture project**

Since the last committee meeting, Kate Wade (JNCC) has been appointed as the new coordinator of the Big Picture Benthic Imagery Project. Any enquiries about this project should be sent to TheBigPicture@jncc.gov.uk.

**Big Picture work concluding from FY23/24**

The Defra funded Big Picture work package to update the Standardised Marine Taxon Reference Image Database (SMarTaR-ID) with images from JNCC’s internal reference collections has concluded. 284 images of echinoderms and 230 images of crustaceans will be made available through SMarTaR-ID. The SMarTaR-ID application is currently being migrated to a new platform. The reference collections will be available when the new platform is launched in October 2024.

The Echinoderm and Crustacean sections of the draft UK Morphotaxa Classification System (UKMCS) have also been tested. Updated versions of these will be presented to the identification approaches project working group of the Big Picture to review before publishing.

**Big Picture work starting in FY24/25**

JNCC has been awarded funding to continue to prepare our image reference collections for inclusion in SMarTaR-ID this financial year.

JNCC has been awarded funding to review and potentially update the NMBAQC Epibiota interpretation guidelines (2016) and NMBAQC Epibiota operational guidelines (2015). This will be achieved through consultation with the Big Picture Group and NMBAQC participants.

Defra funded project to develop AI tools for seabed imagery has been awarded to the University of Plymouth, with JNCC involved as a project partner.

**Application of Deep Learning Artificial Intelligence to Automate Seabed Imagery**

The project, called Application of Deep Learning Artificial Intelligence to Automate Seabed Imagery. The over-arching aim of the project is to investigate the application of Deep Learning Artificial Intelligence to marine benthic monitoring and facilitate future advancements in this field.

Specifically, this project will:

1. Develop a cleaned and standardised AI training dataset for UK epi-benthic marine macro-fauna.
2. Develop an effective object detection / classification AI tool to speed up image analysis by human annotators.
3. Contribute to the development of standards and tools (by being used as a use case for JNCC’s Y3 Offshore Benthic project) to support future up-scaling in use of AI for monitoring within the Defra group and on a national scale.
4. Produce a report on findings to inform the further development of AI enabled benthic monitoring.
5. **Phytoplankton Update**

The IPI programme for 2024 is up and running. Registration has closed and we have 93 participants. There are new laboratories and participants from South Africa, Turkey and the Faroe Islands. RS is in the process of generating new materials for the exercise. The schedule is set to go out as planned, with materials sent out in May and the Oceanteacher exercise opening in June.

1. **Priorities to HBDSEG**

Last meeting was 28/29 February and next meeting due towards the end of May. The annual report needs to be sent prior to this (awaiting on fish which is being completed over the next few weeks) **Action: CT to finalise and send to MOR for editing. Update – waiting for fish section to be completed.**

1. **PSA Update**

**PARTICLE SIZE COMPONENT PROGRESS REPORT**

**2023-24, Year 30**

* 1. **Subscriptions (to date)**

|  |  |  |  |
| --- | --- | --- | --- |
| LabCode | PS 88/89 | PS90/ 91 | PS – OS28/29/30 |
| PSA\_3001 | 1 | 1 | - |
| PSA\_3002 | 1 | 1 | - |
| PSA\_3003 | 1 | 1 | 1 |
| PSA\_3004 | 1 | 1 | 1 |
| PSA\_3005 | 1 | 1 | 1 |
| PSA\_3006 | 1 | 1 | 1 |
| PSA\_3007 | 1 | 1 | - |
| PSA\_3008 | 1 | 1 | - |
| PSA \_3009 | 1 | 1 | - |
| PSA \_3010 | 1 | 1 | 1 |
| PSA \_3011 | 1 | 1 | 1 |
| PSA \_3012 | 1 | 1 | 1 |
| PSA \_3013 | 1  | 1  | - |
| PSA \_3014 | 1 | 1 | - |
| PSA \_3015 | 1 | 1 | 1 |
| PSA \_3020 | - | - | 1 |
| PSA \_3021 | - | - | 1 |
| ° (change from 2022/23) | **15(-2)**  | **15 (-2)** | **10(-7)** |

* 1. **2023-2024, Year 30 Operations**

Particle Size exercises are to be distributed in line with the 2023-2024 timetable (available below). Returns, results and exercise status details are summarised in the table below.

|  |  |  |
| --- | --- | --- |
| Exercise | Status | Returns / Comments |
| PS88 | Samples to be distributed 01/12/23Submission deadline 02/02/24Interim reports to be issued 09/02/24Final Report to be issued 29/02/24**Exercise in progress** | Sands Test12 out of 15 returned results |
| PS89 | Samples to be distributed 01/12/23Submission deadline 02/02/24Interim reports to be issued 09/02/24Final Report to be issued 29/02/24**Exercise in progress** | Diamicton Test12 out of 15 returned results |
| PS90 | Samples to be distributed 01/03/24Submission deadline 26/04/24Interim reports to be issued 03/05/24Final Report to be issued 31/05/24**Exercise in progress** | Fines Test1 out of 15 returned results |
| PS91 | Samples to be distributed 01/03/24Submission deadline 26/04/24Interim reports to be issued 03/05/24Final Report to be issued 31/05/24**Exercise in progress** | Diamicton Test1 out of 15 returned results |
| OS28-30 | Sample data to be requested 15/11/23Data submission deadline Batch 1 15/12/2023/ Batch 2 22/03/24Sample submission deadline Batch 1 26/01/2024/ Batch 2 26/04/24OS Module Summary Report deadline Batch 1 22/03/2024/ Batch 2 05/07/24**Exercises on-going** | 6 out of 10 data sets submitted18 out of 30 samples selected18 out of 30 samples received4 out of 10 reports sent |
| 2023/24 Annual Report & SoPs | Annual Report & Statement of Performance documents deadline 26/07/24 | Report template drafted. |

* 1. **2023 – 2024 Comments.**

PS88 + PS89 the bulk of the exercise is complete – two participants reported non-participation or requested a longer extension to the deadline – currently in the process of chasing them to see if they will submit results before the final version of the report is uploaded to the website. One non-participation without communication despite reminders being sent.

PS90 + PS91 currently in progress – deadline for submissions is this Friday. Have already allowed some extensions as the samples were dispatched later than planned due to staff illness.

PS-OS Batch 1 is complete – final report will be sent this week. Currently chasing the last couple of participants for Batch 2.

**Action: LMB to send final reports to CT once all participants have returned results.**

**Particle Size Component 2023-2024 Timetable (Scheme Year 30)**

|  |  |  |
| --- | --- | --- |
| **Module / Exercise** | **Event** | **Date** |
| PS88 & PS89 | Samples distributed | 01/12/23 |
|  | Results deadline | **02/02/24** |
|  | Interim reporting deadline | 09/02/24 |
|  | Final report deadline | 29/02/24 |
|  |  |  |
| PS90 & PS91 | Samples distributed | 01/03/24 |
|  | Results deadline | **26/04/24** |
|  | Interim reporting deadline | 03/05/24 |
|  | Final report deadline | 31/05/24 |
|  |  |  |
| OS28 - 30 | Request for sample data distributed | 15/11/23 |
|  |  |  |
| Batch 1 | Data submission deadline for sample selection | **15/12/23** |
|  | Selected samples submission deadline | **26/01/24** |
|  | Interim report final deadline (for samples received before 23 December 2022) | 22/03/24 |
|  |  |  |
| Batch 2 | Data submission deadline for sample selection | **22/03/24** |
|  | Selected samples submission deadline | **26/04/24** |
|  | Interim report final deadline | 05/07/24 |
|  |  |  |
| Annual Report | Annual report deadline | 26/07/24 |
| Workshop  | Venue TBC  | TBC |

1. **Benthic Invertebrates Update**

**BENTHIC INVERTEBRATE COMPONENT PROGRESS REPORT**

**2023-24, Year 30**

* 1. **Subscriptions**

|  |  |  |  |
| --- | --- | --- | --- |
| LabCode | RT65/66 | LR28 | OS83/84/85 |
|  BI\_3001 | 1 | 1 | 1 |
| BI\_3002 | 1 | 1 | 1 |
| BI\_3003 | 1 | - | 1 |
| BI\_3004 | 1 | - | 1 |
| BI\_3005 | 1 | - | - |
| BI\_3006 | 1 | - | 1 |
| BI\_3007 | 1 | - | 1 |
| BI\_3008 | 1 | - | - |
| BI\_3009 | 1 | - | - |
| BI\_3010 | 1 | - | - |
| BI\_3011 | 1 | - | 1 |
| BI\_3012 | 1 | - | 1 |
| BI\_3013 | 1  | - | - |
| BI\_3014 | 1 | 1 | - |
| BI\_3015 | 1 | 1 | - |
| BI\_3016 | 1 | - | - |
| BI\_3017 | 1 | - | - |
| BI\_3018 | 1 | 1 | - |
| BI\_3019 | 1 | 1 | 1 |
| BI\_3020 | 1 | - | - |
| BI\_3021 | 1 | - | - |
| BI\_3030 | - | - | 1 |
| BI\_3031 | - | - | 1 |
| BI\_3032 | - | - | 1 |
| BI\_3033 | - | - | 1 |
| BI\_3034 | - | - | 1 |
| BI\_3035 | - | - | 1 |
| BI\_3036 | - | - | 1 |
| BI\_3037 | - | - | 1 |
| BI\_3038 | - | - | 1 |
| BI\_3039 | - | - | 1 |
| BI\_3040 | - | - | 1 |
| BI\_3041 | - | - | 1 |
| BI\_3042 | - | - | 1 |
| ° (change from 2022/23) | **21 (-2)**  | **6 (-)** | 1. **(-15)**
 |

**7.2 2023-2024, Year 30 Operations**

Benthic Invertebrate exercises are to be distributed in line with the 2023-2024 timetable (available below). Returns, results and exercise status details are summarised in the table below.

|  |  |  |
| --- | --- | --- |
| Exercise | Status | Returns / Comments |
| RT65 | Specimens distributed 01/12/23Submission deadline 02/02/24Interim reports issued 09/02/24Ring Test Bulletin issued 08/04/24**Exercise complete** | General Ring Test19 out of 21 data sets received |
| RT66 | Specimens distributed 08/04/24Submission deadline 31/05/24Interim reports to be issued 07/06/24Ring Test Bulletin to be issued 05/07/24**Exercise on-going** | Targeted Ring Test – Deuterostomes0 out of 21 data sets received |
| LR28 | Request for specimens distributed 15/11/23Submission deadline 26/01/24 (extended)Interim reports deadline 15/03/24 (extended)LR Module Summary Report to be issued 22/03/24 (extended)**Exercise on-going** | 2 of the 6 sets of specimens receivedDeadline extended and reminders issued |
| OS83-85 | Sample data requested 15/11/23Data submission deadline Batch 2 22/03/24Sample submission deadline Batch 2 26/04/24OS Module Summary Report deadline 05/07/24**Exercises on-going** | 19 out of 22 data sets received38 out of 57 requested samples received (**update 41)**26 samples reported to date, including 3 samples via the external auditor |
| 2023/24 Annual Report & SoPs | Annual Report & Statement of Performance documents deadline 26/07/24 | Report template drafted |

* 1. **Issues arising**
		1. **RT Exercise Timetable Changes**

Due to key staff member illness the bulletin for RT65 and circulation of RT66 specimens were delayed. RT Module participants were informed of the delays and a revised timetable was issued. Essentially the timetable for RT66 has moved forward one month, which still align with the completion of the 2023/24 exercises and production of the Annual Report as originally scheduled.

* 1. **Taxonomic Workshops**

Expert Taxonomic Workshop, University of Galway

The taxonomic workshop planning is on-going, and details will be confirmed as soon as possible along with the issue of a workshop EOI form.

The workshop is planned for around summer (date tbc) when the laboratory will be on their summer break.

GA thanked DH for the beginner workshop which her team found really useful.

**Invertebrate Component 2023-2024 Timetable (Scheme Year 30)**

|  |  |  |
| --- | --- | --- |
| **Module / Exercise** | **Event** | **Date** |
| RT65 - General | Samples distributed | 01/12/23 |
|  | Results deadline | **02/02/24** |
|  | Interim reporting deadline | 09/02/24 |
|  | Final report deadline | ~~29/02/24~~ 08/04/24 |
|  |  |  |
| RT66 - Targeted | Samples distributed | ~~01/03/24~~ 08/04/24 |
|  | Results deadline | **~~26/04/24~~ 31/05/24** |
|  | Interim reporting deadline | ~~03/05/24~~ 07/06/24 |
|  | Final report deadline | ~~31/05/24~~ 05/07/24 |
|  |  |  |
| LR28 | Protocol and request for specimens distributed | 15/11/23 |
|  | Specimen submission deadline | **26/01/24 -** |
|  | Interim reports deadline | 15/03/24 - |
|  | LR summary report deadline | 22/03/24 - |
|  |  |  |
| OS83–85 | Request for sample data distributed | 15/11/23 |
|  |  |  |
| Batch 1 | Data submission deadline for sample selection | **15/12/23** |
|  | Selected samples submission deadline | **26/01/24** |
|  | Interim report final deadline (for samples received before 23 December 2022) | 22/03/24 |
|  |  |  |
| Batch 2 | Data submission deadline for sample selection | **22/03/24** |
|  | Selected samples submission deadline | **26/04/24** |
|  | Interim report final deadline | 05/07/24 |
|  |  |  |
|  | OS summary report deadline | 19/07/24 |
|  |  |  |
| Annual Report | Annual report deadline | 26/07/24 |
|  |  |  |
| Workshop – experts | Venue TBC (University of Galway) | (Summer24) |
| Workshop – beginners | TBC – subject to demand | TBC |

1. **Macroalgae Update**

**MACROALGAE BIOMASS AND PERCENTAGE COVER COMPONENT PROGRESS REPORT**

**2023-24, Year 30**

* 1. **Subscriptions**

|  |  |  |
| --- | --- | --- |
| Lab Code | RT15 OMC | RT15 OMB |
| MA\_3001 | 1 | - |
| MA\_3002 | 1 | - |
| MA\_3003 | 1 | 1 |
| MA\_3004 | 1 | 1 |
| MA\_3005 | 1 | 1 |
| MA\_3006 | 1 | 1 |
| MA\_3007 | 1 | 1 |
| MA\_3008 | 1 | 1 |
| MA\_3009 | 1 | 1 |
| MA\_3010 | 1 | - |
| MA\_3011 | 1 | 1 |
|  |  |  |
| Total (change from last year) | **11 (+0)** | 1. **(-3)**
 |

 **8.2.** **2023-2024, Year 30 Operations**

All circulations of MA exercises will be distributed in line with the 2023-2024 timetable (available below). Returns and results are summarised in the table below.

|  |  |  |
| --- | --- | --- |
| Exercise | Status | Returns / Comments |
| RT15 OMC | Samples distributed: 26/01/2024 |  |
| Sample deadline: 08/03/2024 |  9 out of 11 returned results |
| Interim reports issued: 05/04/2024 |  |
| Final reports issued: 03/05/2024 |  |
| **Exercise in progress** |  |
| RT15 OMB | Samples distributed: 26/01/2024 |  |
| Sample deadline: 08/03/2024 | 6 out of 8 returned results |
| Interim reports issued: 05/04/2024 |  |
| Final reports issued: 03/05/2024 |  |
| **Exercise in progress** |  |

* 1. **Issues arising**

Of the nine laboratories that sent in their OMC results there were thirty-three individual submissions of data.

As a result of participant feedback, all three macroalgal biomass tests in RT15 comprised of mixed artificial materials two of which had additional material that required extraction prior to weighing.

**Macroalgae Biomass and Percentage Cover Component 2023-2024 Timetable**

**(Scheme Year 30)**

|  |  |  |
| --- | --- | --- |
| **Module / Exercise** | **Event** | **Date** |
| RT15 OMB | Samples distributed: 26/01/2024 | 26/01/2024 |
|  | Sample deadline: 08/03/2024 | 08/03/2024 |
|  | Interim reports issued: 05/04/2024 | 05/04/2023 |
|  | Final reports issued: 03/05/2024 |  |
|  | **Exercise in progress** |  |
|  |  |  |
| RT15 OMC | Samples distributed: 26/01/2024 | 26/01/2024 |
|  | Sample deadline: 08/03/2024 | 08/03/2024 |
|  | Interim reports issued: 05/04/2024 | 05/04/2023 |
|  | Final reports issued: 03/05/2024 |  |
|  | **Exercise in progress** |  |

All modules have been delivered on time and there have been no problems with the latest ring tests (after acted on feedback from previous).

GA advised there are four new staff training for the rocky shore ID.

**Action: GA and GP to have a catch up. GBJ and GA to also meet with Soren to discuss future ideas.**

1. **Fish Update:**

**FISH COMPONENT PROGRESS REPORT**

**2023-2024, Year 30**

* 1. **Subscriptions (to date)**

|  |  |  |
| --- | --- | --- |
| LabCode | F-RRT15 | F-RT17 |
|  F\_3001 | 1 | 1 |
| F\_3002 | 1 | 1 |
| F\_3003 | 1 | - |
| F\_3004 | 1 | - |
| F\_3005 | 1 | - |
| F\_3006 | 1 | - |
| F\_3007 | 1 | - |
| F\_3008 | 1 | - |
| F\_3009 | 1 | 1 |
| F\_3010 | 1 | 1 |
| F\_3011 | - | 1 |
| F\_3012 | - | 1 |
| F\_3013 | - | 1 |
| F\_3014 | - | 1 |
| F\_3015 | 1 | 1 |
| F\_3016 | - | 1 |
| F\_3017 | - | 1 |
| F\_3018 | - | 1 |
| F\_3019 | 1 | 1 |
| F\_3020 | - | 1 |
| F\_3021 | 1 | 1 |
| Total (change from last year) | **13 (+3)** | **14 (+7)** |
|  |  |  |

* 1. **2023-2024, Year 30 Operations**

|  |  |  |
| --- | --- | --- |
| Module / Exercise | Event | Date |
| F-RRT15 | Protocol and request for specimens distributed (including supply of fish postage boxes) | 25/03/24 |
|  | **Specimen submission deadline** | **04/05/24** |
|  | Final report deadline | 07/06/24 |
|  |  |  |
| F-RT17 | Samples (specimens & images) distributed | 10/05/24 |
|  | **Results deadline** | **21/06/24** |
|  | Interim reporting deadline | 05/07/24 |
|  | Final report deadline | 02/08/24 |
|  |  |  |
| Annual Report | Annual report deadline | 30/08/24 |
|  |  |  |
| Workshop – experts | TBC – subject to demand | TBC |
|  |  |  |
| Workshop – beginners | TBC – subject to demand | TBC |

F-RRT15 - boxes distributed, no shipping problems thus far. 4 out of 13 submissions received.

F-RT17 – specimens received from CEFAS, survey going ahead APR/MAY 2024 for supplemental specimens.

* 1. **2022-2023, Year 29 Operations**

Reports still in progress. Due to send for review after upcoming surveys (early May).

* 1. **Issues arising**

**Taxonomic Workshop**

Currently no taxonomic workshop is planned for fish. A targeted workshop can be developed if sufficient interest is shown.

* 1. **Outstanding issues**

The group discussed ichthyoplankton, currently falling between fish and zooplankton and no group is currently picking this up. DJ advised the MBA have ran fish larvae workshops in the past.

**Action: DJ to investigate getting fish samples from MBA *Sepia* during their sampling to St Austell Bay.**

**Action: GP to follow up with EA concerning acquiring extra specimens, may need to apply for dispensation. This is however, becoming more difficult to acquire.**

MG also asked DW about providing photos to accompany the ring tests. DW advised this is supplementary but will aim to try and include photos this year.

1. **Zooplankton Update:**

A ring test comprising of 10, single taxon, tubed zooplankton specimens for identification (from the North Atlantic); 8 written questions and an enumeration exercise (counting of copepods and decapods), was sent out in Jan/Feb 2023. Sixteen participants, from eleven different laboratories signed up for the ring test (prior to completion one analyst withdrew from the test). All participants were from Europe, with 80% of participants from UK organisations. This year we welcomed two new laboratories from Germany to the Scheme.

Participants were given ten weeks to complete the written quiz and five weeks to complete the practical components (specimen ID and enumeration); results were assessed by the senior plankton analysts at the CPR Survey, Plymouth. Fifteen participants, from eleven different laboratories took part in the workshop, held in July 2023, where results were discussed and consensus for marking of results was reached.

The consensus amongst participants was that the zooplankton ring test was again deemed a success. It showed that the level of zooplankton identification amongst participants overall is very good, and that it provides a useful training exercise and opportunity to discuss problematic taxa.

DJ advised MW has stepped down in her role. The MBA are carrying on with the ring tests but there will be a slight delay until personnel are in place.

**Action: CT to upload zooplankton annual report onto website. Update done**

1. **AOB:**

CM highlighted the Blue Carbon Standardisation workshop which she attended in March. The group are currently working on guidance notes, so this is progressing. **Action: DJ to update at HBDSEG meeting.**

MG asked if people were using the TDP protocol across labs. DH advised that TDP is always applied to audits but would welcome further feedback if possible, particularly from smaller laboratories.

MOR highlighted that we are the group are now in our 30th year (March 1994) and this needs celebrating. MG offered to hold the next meeting face to face and at Cardiff museum (with a tour of their reference collection). **Action: CT to contact MG with a date, likely September 2024** (move next committee meeting to align). **Update: Tentative date of 25 September proposed to MG, awaiting confirmation**

To also create a summary document of the groups achievements which could go into the Marine Biologist magazine. **Action DJ to approach editor, authors needed.**

1. **Contractor Questions:** no questions received
2. **Finance \*Confidential**

**DONM: September 2024, date tbc.**