The National Marine Biological Analytical Quality Control Scheme

Fish Component Report from the Contractor Scheme Operation – Year 15 2008/09

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SCHEME OPERATION – YEAR 15 – 2008/09

1. Introduction

The fifteenth year of the National Marine Biological Analytical Quality Control (NMBAQC) Scheme (2008/09) followed the format of the fourteenth year. A series of components, modules and exercises involved the distribution of test materials to participating laboratories and the centralised examination of returned data and samples. The labelling and distribution procedures employed previously have been maintained and specific details can be found in the Scheme's annual reports for 1994/95 and 1995/96 (Unicomarine / NMBAQC, 1995 & 1996).

This year there were no official modules or exercises prepared for the fish component of the NMBAQC Scheme. A series of two unofficial trial exercises were conducted to assess the feasibility and logistical protocols for a reverse fish ring test. One exercise was aligned with the spring fish monitoring surveys and one with the autumn surveys (LR-F Trial_1 and LR_F Trial_2, respectively). The findings of these trial exercises are not presented here, however the logistics were deemed robust enough to commission an official exercise (RRT01) in the forthcoming Scheme year (2009/10).

1.1 Summary of Activities

This report presents the findings of the Fish component for the fifteen year of operation of the National Marine Biological Analytical Quality Control (NMBAQC) Scheme.

This component consisted of one unofficial trial module, with two exercises:

- Re-identification of a set of fifteen fish specimens supplied by each of the participating laboratories (Trial Reverse Fish Ring Test module).

The results of these exercises have not been officially reported, as agreed with the NMBAQC Coordinating Committee.

2. Conclusions and Recommendations

A number of observations may be made from the results of the exercises described above. The following is a summary of the major points of importance.

1. The two trial Reverse RT fish exercises were successfully implemented and the format can be brought forward for an official exercise in the next Scheme year. Participants are encouraged to continue to provide feedback to enable the protocols to be refined.

2. The maintenance of a comprehensive reference collection has numerous benefits for improving identification ability, training new staff, maintaining consistency of identification between surveys and access to growth series material. The inclusion of growth series material is extremely useful for certain faunal groups. Ideally all surveys should have an associated reference collection to enable ease of cross-checking or adopting future taxonomic developments. It is strongly recommended that laboratories implement and expand in-house reference collections of fauna; these collections could include images and physical specimens.

3. Differences in the literature used for identification of invertebrates have been highlighted by the RRT exercises. Unpublished keys from Scheme workshops could be posted on the Scheme's website. The Scheme has produced a UK Standard Taxonomic Literature database. Laboratories are encouraged to review the content and give details of additions wherever possible.

4. The RT and Reverse RT fish exercises offer training and baseline data for fish identification, however a quality control module (similar to the invertebrate components Own Sample module) should be devised to provide quantifiable data assurance.

3. References

Unicomarine Ltd. / National Marine Biological AQC Committee (May 1995). *National Marine Biological Quality Control (AQC) Scheme. Final Report April 1994 – March 1995*, 33pp. Tables 1-22, Figs.1-16.

Unicomarine Ltd. / National Marine Biological AQC Committee (June 1996) *National Marine Biological Quality Control Scheme. Final Report (Year 2)*, 42pp.,Tables 1-17, Figs.1-16.