

1 Epibiota component

Component Administrator: Joey O'Connor, JNCC.

1.1 Summary of activities

External quality assurance processes

JNCC, Cefas and Marine Scotland Science continued to include external quality assurance processes for further quality assuring results of imagery analyses undertaken in-house and sub-contracted for offshore Marine Protected Area monitoring. These include a full reanalysis of a subset of 10% of the imagery data by an independent analyst, a subsequent comparison of the two analyses to check for differences and remediation where necessary before the imagery analysis is deemed complete. The processes run alongside internal quality assurance checks undertaken by the primary analysts. The protocols are set out in each project specification with a summary of the protocol followed and results/remedial action undertaken captured in each project report. The protocols have been refined on a project-by-project basis with JNCC, Cefas, Marine Scotland Science, Envision Ltd, Seastar Survey Ltd, MarineSpace Ltd, Ocean Ecology Ltd and Galathea Ltd participating in 2020/2021. Costs relating to these new external quality assurance processes have been absorbed into the imagery analysis costs of each project on a per project basis.

Big Picture Group: Terms of Reference, Big Picture II workshop, Quality Assurance Framework and Epifaunal Identification Protocol

The work of the Big Picture Group was coordinated by JNCC in 2020/2021. JNCC drafted Terms of Reference for the Big Picture Group in August 2020, which have been agreed by all members, and held an online Benthic Imagery Action Plan workshop in November 2020 to identify Project Working Groups to take Actions identified in the Benthic Imagery Action Plan forward.

JNCC hosted a second benthic imagery analysis workshop ("THE BIG PICTURE II") via online video conferencing in March 2021. The three day virtual event was a success with 85 attendees from the UK, Spain, Belgium, Netherlands, USA and Canada discussing the successes, funding routes, global outreach opportunities and future challenges of and for the Big Picture Group in implementing the UK Benthic Imagery Action Plan (<https://jncc.gov.uk/news/big-picture-ii/>).

JNCC have worked with the Marine Biological Association and Big Picture Project Steering Groups to develop an end-to-end benthic imagery Quality Assurance Framework (QAF), which includes an online tool for automating quality checks on MEDIN-compliant imagery purpose-specific data recording proformas. Taxonomic identification formed one of the themes at the first Big Picture Workshop and the development of an epibiota taxonomic discrimination protocol to inform taxonomic identification from imagery has continued through the QAF work. As part of this work JNCC held a series of mini workshops with imagery taxonomy experts between December and February 2021 to further develop the Epibiota Identification Protocol (EIP), which now contains 800 taxa. The outputs of this work were added to the

NMBAQC website in April 2021 and the QAF process will be trialled by NMBAQC members throughout 2021/2022.

Priorities for 2021/2022 are to further develop the EIP and to host a Big Picture Group workshop on standards for sharing and archiving marine image annotations.