

Clyde 2020 Summit, 23rd April 2014

Annex B - Research Workshops

Workshop Flip Chart Notes

Session 1 – 11.45-12.45

Research A – St Andrews, Blue Group

Recreational fishing

- information on participation
- data on catch rates
- mining possible from local club records who are collecting current data
- include socio/economic impacts eg Radford report and decline in boat charter business
- interaction with aquaculture

Fish Recovery

- What are the bottlenecks? By catch, impacts on nursery habitats
- What is the fate of juvenile fish? Age of maturity, bycatch?
- Other factors – changed nutrient inputs (WFD) / plankton trends

MPAs

- Relationship between inshore habitats and commercial species.
- D+R MPA – opportunity for trial management
- MSFD – testing value of management in achieving objectives.
- Plankton

Understanding social/historic/economic context

Data assimilation and modelling

Making the most of MPAs to learn about effect of management.

Research B - Hamilton room – Orange Group

?? Mortality in the system

- Gear Selectivity
- Higher predator food consumption

Mapping and Valuing the Ecosystem

- Holistic approach to socio-economic assessments
- Development plan for ecosystem goods and services

Status review of information

- History of the Clyde should include all marine industries

Climate change impacts

Monitoring long term e.g. impacts of MPA designation

Clyde Hydrodynamic Model e.g. tides

Food Chain/eating habits

Session 2 – 1330-1430

Research A – St Andrews, Red Group

Roles of EMFF in funding this collaborative work

Economic Potential

- Where is there potential for growth (angling/ecotourism)
- Need a coherent strategy for Clyde 2020 research
- What are the indicators to use?
- Build around ecological functions

Revisit the NERC ecosystem proposal (MHeath)

Long term trends

- Data Mining
- Revisit previous surveys e.g. RSG Clyde publication, early 20th Century survey

Trial management measures or practices

- Testing management scenarios

Research to understand functional diversity

- Revisiting the wider science of ecosystem change ie to inform what is done in Clyde
- Revisit NERC proposal
- Scenario testing
- Historical data – trends and activities e.g. fishing
- Fish population
 - Age of maturity
 - Fishery driven by evolutionary change
- Discard Ban
 - Implications for nephrops productivity i.e. nutrients out of the system
 - Implications for other species (predators)
- Comparison with other ecosystems
 - Change examples elsewhere
 - Lessons to inform decisions in management and research
- Research should not mean delay in action but be in context of adaptive management
- Principles of how research is done – more cooperation between fisheries and scientists.

Research B – Hamilton – Yellow Group

- Better collaboration between MASTS and IFG
 - Mini advisory council
- Governance
 - Where does the Clyde fit into regional assessments?

- Spatial connectivity
 - Litter
 - Sewage
- Discarding/survival/mortality (toxicology)

Session 3 – 1500-1600

Research A – St Andrews – Green Group

- Benthic
 - Status of benthic habitats
 - Trends in quality
- Benchmark social/economic benefits
- Survey of all Clyde benthic environments
- MSFD descriptors – focus of research on specific aspects
- A more refined resource map for Clyde ie from Marine Atlas
- Clyde as a place to study behaviour in response to management scenarios eg fishing to spatial management.
- Compliance, testing methods.

- Benthic survey
- Benchmarking human uses and value

Research B – Hamilton – Purple Group

- Habitats
- Fishing Intensity Trends
- Aquaculture trends