**Briefing 2. The SWME Model**

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***Also watch this briefing*** on our YouYube channel [South-West Marine Ecosystems](https://youtu.be/Ybrxn_NHraQ).

1. **What is the South-West Marine Ecosystems Model?**

In short, SWME is an annual, regional programme of communications and reporting on the marine environment in South-west England and which has a large outreach to the marine community.

More formally, the aim of SWME is to enable and produce an annual report on the state of south-west seas and build the social capital among organisations, networks and individuals active within this region who are involved in research, management and recovery of the marine environment.

Each year SWME provides a communications platform including webinars, YouTube channel, annual conference, annual report and wider publicity that enables this community to share the changes they have recorded.

[The SWME Model](http://swmecosystems.co.uk/wp-content/uploads/2022/08/Final-The-SWME-Model-PAPER-V2-August-2022.pdf) is described in a paper which can be downloaded from the [SWME website](http://swmecosystems.co.uk/).

1. **SWME Model – Key Ideas - Unique Selling Points**

The SWME Model can be broken down in to a number of unique selling points – USPs; these points have also been framed as objectives in various documents. They include:

**Annual** The programme of communication runs on an annual cycle to report change and the state of south-west marine ecosystems in a timely way to influence research, management and recovery.

**Communication: Meetings** Through conferences and webinars

**Communication: Reporting - State of the South-West Marine Ecosystems** The reports cover a number of thematic topics on natural systems: oceanography, plankton, seabed and seashore, fish & turtles, seals, marine and coastal birds, cetaceans, and management topics: spatial management, MPAs, fisheries, water quality and plastics pollution. The report is highlighted to the media.

**Regional scale & resonance** Covering the Celtic Sea & English Channel and adjacent countries, achieving a level of granularity that isn't achieved at a larger national scale and having a relevance and resonance with the target audiences.

**Freedom of decision making** It is entirely in the gift of the SWMESteering /Editor group to decide on the programme of events and thematic topics covered. This is not decided by any national funding body or programme.

1. **What does SWME describe?**

**What thematic topics does SWME cover?**

SWME reports on the following thematic topics . The natural systems topics include:

* oceanography (including meteorology & storms)
* plankton
* seabed and seashore ecology
* fish
* seabirds
* seals and
* cetaceans.

The management topics include:

* marine planning and licencing
* marine protected areas
* fisheries
* water quality and
* plastic pollution.

These thematic topics link closely with the descriptors and policy actions of the UK Marine Strategy; a table has been produced demonstrating this (Table 1).

**Complexity & ecosystems** Annual reporting and communication across a wider range of varied disciplines enables links between thematic topics to be identified to better understand and better reflect the complexity and links within marine ecosystems. This enables the wider marine community to spot and understand what is going on. This is a very rich seam of information which in 2021 we described in the SW State of the Seas report with the following prompts:

* Describing 'normal' patterns of events
* Population trends – up and down
* Marking major events and their effects
* Highlighting significant ecological and population changes including:
* 'Stand-out' observations – new novel and exceptional events
* Managing human activities in the south-west marine ecosystems
* Acting to focus interest
* Telling stories about what we know and providing access for education and outreach
1. **Who is involved?**

**Audience** SWME provides feedback to citizen scientists, scientists and researchers, managers and policy advisors, organisations and the wider public.

**Social capital, organisation, partnership & collaboration** SWME Builds social capital through meetings that enable greater co-operation and collaboration through an informal partnership. To provide a network for cascading information and raising awareness. It also places real value on data collected through citizen science programmes, together with data collected through academic and scientific institutions.

**In numbers**: 1250+ contacts are on the SWME bulk emailing list. There are also Twitter, YouTube & Facebook social media pages which extends the reach further. Prior to Covid, up to 300 people attended the annual meeting each year; in 2023 140+ attend the SWME annual conference at PML.

**Who steers SWME?** There is an organising group of 25+ people who are convened annually. They comprise editors and team members covering the thematic topics, and steering group members who take a view across the piece, with representatives from major regional marine institutional interests; Plymouth Marine Laboratory, Marine Biological Association, Exeter & Plymouth universities.

1. **How is SWME financed?**

**Voluntary – Finance** SWME relies on the voluntary input of the south-west marine community to build continuity and certainty. SWME is not dependent on fund raising but has proven that this method is a sustainable financial model as it has been going for over 17 years now.For events like conferences expenses are met through the modest delegate fees that cover costs.

1. **State of the Seas Reporting – Reporting Annual Change - Continuing Evolution**

State of the seas reporting poses a question of comparing one period with another. In the approach adopted over the last 30 years, different reporting processes have adopted different timeframes, for example, a time base between comparisons of 3-4 years between North Sea Ministerial Meetings, or 5 - 6 years for MSFD/UKMS/OSPAR reporting.

The SWME model and state of seas reporting makes that process annual, facilitating comparisons between one year and the next. This begs the question of what is being compared year on year and how this done. The SWME process prompts questions to be asked and links to be explored. It considers what is ‘normal’ and what’s not, using the concept of indicators, all verified by regional experts. It also enables issues or trends to be identified and reacted to more quickly than when reporting on longer timeframes where the level of local resolution may be lost.

Strategic decision making requires systematic, integrated, robust and responsive local data and monitoring, which is open and accessible. The SWME model of reporting on the state of the SW sea helps to provide this necessary information.

The SWME annual report has been produced for nine years. It has *evolved* considerably in that time from simply capturing speaker notes to covering a set group of thematic topics year on year. It’s evolution continues and this year, 2022, we have begun to look at the interactions between topics. Currently a SWME paper entitled ‘Reporting Annual Change’ is being prepared and will be published as working draft in 2023. This RAC paper describes how the SWME topic editors are describing change and explores the emerging methodologies they are using, not least so they can be developed in a systematic way.

1. **When does this happen?**
* There is an annual process
* We convene in the autumn in October – Steering group and editors
* The webinars are in Feb – March
* The Conference is in April
* The report we aim to get out in July – with media work then
1. **References**

South West Marine Ecosystem – State of South-West Seas Annual Reports – since 2014. Weblink: <http://swmecosystems.co.uk/annual-reports>

South West Marine Ecosystems Thematic Topic Webinars covering the years 2021 and 2022.

<https://www.youtube.com/channel/UCojA2OkFX0fM-oq7bVTofhQ>

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| **Table 1. SWME Thematic Topics and UKMS Descriptors**  |
|  |  |
|  | *D1 is Biodiversity, D4 is Foodwebs* |
|  | Ecological components e.g. Seals  |
| **SWME Thematic Topics** | ***UKMS Descriptors & Policy response*** |
| **Natural systems**  |  |
| Oceanology & Meteorology | *D7 Hydrographical conditions* |
| Plankton | *D1 & D4 Pelagic habitats* |
| Seashore and seabed | *D1 & D6 Benthic habitats; also D4* |
|  | *D2 Non-indigenous species* |
| Fish & turtles | *D1 & D4 – Non-commercial fish – [turtles may end up as part of pelagic habitats]* |
| Coastal & Marine birds | *D1 & D4 Birds* |
| Seals  | *D1 & D4 Seals* |
| Cetaceans | *D1 & D4 Cetaceans* |
| **Management categories** | ***Policy Response categories*** |
| Marine planning |  |
| Marine Protected Areas & Recovery & Restoration | *MPAs are policy responses rather than descriptors* |
| Fisheries  | *D3 Commercial fish* |
| Water Quality  | *D5 Eutrophication* |
|  | *Overlap with Pelagic Habitats* |
| *Mainly coastal e.g. sewage* | *D8 Contaminants* |
|  | *D9 Contaminants in seafood*  |
| Plastics pollution | *D10 Marine litter* |
| *Not covered* | *D11 Underwater Noise* |