



# Manuscript of book on results of DEVOTES project

## Deliverable 7.6

Dissemination level

**Public**

### LEAD CONTRACTOR

ECOREACH Ltd

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## 1. Scope of this Deliverable

The purpose of this report is to provide the support for documentation of the DEVOTES Book, produced as part of dissemination activities undertaken in the context of WP7, and in particular under the task 7.2.4 “TV documentary and book”. Work on the Deliverable 7.6 “Manuscript of book on results of DEVOTES project” started on Month 31.

## 2. The book

In June 2015, the Steering Committee decided to produce this book by using an open access journal (Frontiers in Marine Science), by promoting a special issue including at least a paper from each DEVOTES WP, summarizing the main findings of each of them, together with other regular papers from the consortium, and writing a final one with the complete overview of the project. The following members of the DEVOTES Steering Committee are editors of the Special Issue: Angel Borja, Mike Elliott, Jacob Carstensen, Maria C. Uyarra and Marianna Mea. In January 2016, a call for submission was open in the Frontiers of Marine Science website. Out of 36 abstracts presented during the first round of submission, 31 papers were submitted and sent to reviewers. Papers already published in Frontiers during the lifetime of the project were selected and included in the book.

### 2.1. Table of contents of the DEVOTES book “Bridging the Gap Between Policy and Science in Assessing the Health Status of Marine Ecosystems” (First Edition)

- Grand challenges in marine ecosystems ecology Angel Borja

Legal framework of marine activities and management

- *DPSIR—Two Decades of Trying to Develop a Unifying Framework for Marine Environmental Management?* Joana Patrício, Michael Elliott, Krysia Mazik, Konstantia-Nadia Papadopoulou and Christopher J. Smith

- Managing the Marine Environment, Conceptual Models and Assessment Considerations for the European Marine Strategy Framework Directive Christopher J. Smith, Konstantia-Nadia Papadopoulou, Steve Barnard, Krysia Mazik, Michael Elliott, Joana Patrício, Oihana Solaun, Sally Little, Natasha Bhatia and Angel Borja
- A Global Review of Cumulative Pressure and Impact Assessments in Marine Environments Samuli Korpinen and Jesper H. Andersen Better monitoring, better assessment
- *European Marine Biodiversity Monitoring Networks: Strengths, Weaknesses, Opportunities and Threats* Joana Patrício, Sally Little, Krysia Mazik, Konstantia-Nadia Papadopoulou, Christopher J. Smith, Heliana Teixeira, Helene Hoffmann, Maria C. Uyarra, Oihana Solaun, Argyro Zenetos, Gokhan Kaboglu, Olga Kryvenko, Tanya Churilova, Snejana Moncheva, Martynas Buc̃as, Angel Borja, Nicolas Hoepffner and Michael Elliott
- Evaluation of Alternative High-Throughput Sequencing Methodologies for the Monitoring of Marine Picoplanktonic Biodiversity Based on rRNA Gene Amplicons Isabel Ferrera, Caterina R. Giner, Albert Reñé, Jordi Camp, Ramon Massana, Josep M. Gasol and Esther Garcés
- Benchmarking DNA Metabarcoding for Biodiversity-Based Monitoring and Assessment Eva Aylagas, Ángel Borja, Xabier Irigoien and Naiara Rodríguez-Ezpeleta
- Historical Data Reveal 30-Year Persistence of Benthic Fauna Associations in Heavily Modified Waterbody Ruth Callaway
- Need for monitoring and maintaining sustainable marine ecosystem services Jacob Carstensen

#### **Indicators to assess the status**

- *An Objective Framework to Test the Quality of Candidate Indicators of Good Environmental Status* Ana M. Queirós, James A. Strong, Krysia Mazik, Jacob Carstensen, John Bruun, Paul J. Somerfield, Annette Bruhn, Stefano Ciavatta, Eva Flo, Nihayet Bizsel, Murat Özydinli, Romualda Chuševė, Iñigo Muxika, Henrik Nygård, Nadia Papadopoulou, Maria Pantazi and Dorte Krause-Jensen
- Light Thresholds to Prevent Dredging Impacts on the Great Barrier Reef Seagrass, *Zostera muelleri* ssp. *capricorni* Kathryn M. Chartrand, Catherine V. Bryant, Alex B. Carter, Peter J. Ralph and Michael A. Rasheed
- Chemical Assessment of Ballast Water Exchange Compliance: Implementation in North America and New Zealand Monaca Noble, Gregory M. Ruiz and Kathleen R. Murphy

### **Assessing the status in an integrative way**

- *Tales from a thousand and one ways to integrate marine ecosystem components when assessing the environmental status* Angel Borja, Theo C. Prins, Nomiki Simboura, Jesper H. Andersen, Torsten Berg, Joao-Carlos Marques, Joao M. Neto, Nadia Papadopoulou, Johnny Reker, Heliana Teixeira and Laura Uusitalo
- *Overview of Integrative Assessment of Marine Systems: The Ecosystem Approach in Practice* Angel Borja, Michael Elliott, Jesper H. Andersen, Torsten Berg, Jacob Carstensen, Benjamin S. Halpern, Anna-Stiina Heiskanen, Samuli Korpinen, Julia S. Stewart Lowndes, Georg Martin and Naiara Rodriguez-Ezpeleta
- *Integrated assessment of marine biodiversity status using a prototype indicator-based assessment tool* Jesper H. Andersen, Karsten Dahl, Cordula Göke, Martin Hartvig, Ciarán Murray, Anna Rindorf, Henrik Skov, Morten Vinther and Samuli Korpinen
- *Indicator-Based Assessment of Marine Biological Diversity—Lessons from 10 Case Studies across the European Seas* Laura Uusitalo, Hugues Blanchet, Jesper H. Andersen, Olivier Beauchard, Torsten Berg, Silvia Bianchelli, Annalucia Cantafaro, Jacob Carstensen, Laura Carugati, Sabine Cochrane, Roberto Danovaro, Anna-Stiina Heiskanen, Ville Karvinen, Snejana Moncheva, Ciaran Murray, João M. Neto, Henrik Nygård, Maria Pantazi, Nadia Papadopoulou, Nomiki Simboura, Greta Sre'balienė, Maria C. Uyarra and Angel Borja

### **Socio-economic aspects and management**

- *Mapping ecosystem services provided by benthic habitats in the European North Atlantic Ocean* Ibon Galparsoro, Angel Borja and María C. Uyarra

### **Lessons learnt**

- *From Science to Policy and Society: Enhancing the Effectiveness of Communication* Marianna Mea, Alice Newton, Maria C. Uyarra, Carolina Alonso and Angel Borja
- *Bridging the Gap between Policy and Science in Assessing the Health Status of Marine Ecosystems* Angel Borja, Michael Elliott, Paul V. R. Snelgrove, Melanie C. Austen, Torsten Berg, Sabine Cochrane, Jacob Carstensen, Roberto Danovaro, Simon Greenstreet, Anna-Stiina Heiskanen, Christopher P. Lynam, Marianna Mea, Alice Newton, Joana Patrício, Laura Uusitalo, María C. Uyarra and Christian Wilson

### Website links:

The book is available for download as at the following links:

<http://journal.frontiersin.org/researchtopic/4637/bridging-the-gap-between-policy-and-science-in-assessing-the-health-status-of-marine-ecosystems>

[http://www.frontiersin.org/books/Bridging\\_the\\_Gap\\_Between\\_Policy\\_and\\_Science\\_in\\_Assessing\\_the\\_Health\\_Status\\_of\\_Marine\\_Ecosystems/1016](http://www.frontiersin.org/books/Bridging_the_Gap_Between_Policy_and_Science_in_Assessing_the_Health_Status_of_Marine_Ecosystems/1016)

<http://www.devotes-project.eu/devotes-ebook-online/>

Direct links:

<http://journal.frontiersin.org/researchtopic/4637/pdf>

<http://journal.frontiersin.org/researchtopic/4637/epub>

## 3. Next steps

A new edition with the papers still in the review process at the moment of releasing this deliverable will be published in three-four coming months. The pdf and epub versions of the special issue is freely downloadable from the website of the journal and will be included in the application for smartphone “DEVOTES” (Task 7.2.6, Deliverable 7.3)