

# Third Management report

November 2001 – April 2002

## Implementation and Networking of large-scale long-term Marine Biodiversity research in Europe

### **BIOMARE**



Contract No: EVR1-CT2000-20002

Proposal No: EVK2-1999-00250

Project Co-ordinators :

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Netherlands Institute of Ecology, Centre for Estuarine and Coastal Ecology

Website: <http://www.biomareweb.org>

Project duration: 2 years  
November 2000 – October 2002

Yerseke, June 2002

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## SECTION 1: Management and resource usage summary related to the reporting period

### 1.1. Objectives of the reporting period

The objectives in the reporting period, November 2001 – April 2002, were:

- 1) to continue the inventories on:
  - Reference Sites and Flagship Habitats
  - Biodiversity indicators
- 2) to have a first Workshop
- 3) to have a second series of Regional Meetings
- 4) to report the inventories on Reference Sites and Biodiversity Indicators in Regional Meetings

### 1.2. Scientific/Technical progress made in different work packages according to the planned time schedule:

#### 1.2.1. Progress

In November 2001 the first BIOMARE Workshop was held at Palma de Mallorca. The main aim was to report and adjust the first drafts on the selection of Reference sites and Biodiversity Indicators. Many, i.e. more than 190 stations were proposed as reference site. Criteria for the selection of reference sites were adjusted, and it was decided to install a committee of independent researchers to judge on the selection of primary (Intensive) sites.

A protocol for biodiversity indicators was further worked out during the workshop. To refine and develop the set of indicators for marine biodiversity it was decided to organise four ad-hoc working groups, communicating through E-mail.

A full report of the Workshop is attached (see appendix).

In January and February 2002 the additional E-conference on 4 working groups within WP2 was organised. Towards the end the discussion was very vivid with several dedicated contributions.

The meeting for the Mediterranean Region and the North Sea / Baltic Region were organised in parallel in Iraklion, Crete, Greece (March 2002). The meeting for the Atlantic / Arctic Region was organized in Horta, Azores, Portugal (April 2002).

During the Regional Meetings the selection of the independent committee on the 35 Primary Reference sites were evaluated. Major agreement existed on the choices made. For the remaining 150 reference sites it was decided to send a list of evaluation criteria to the proposers and to give them the opportunity for a self-evaluation of their site. Those, whose site had not been chosen as a primary site, and felt treated unfair, could start an appeal procedure.

The protocol on biodiversity indicators was clarified. However, underlying description of procedures still should be added, which is noted as a key-action for the coming period.

A full report of the Regional Meetings is given in appendices.

All BIOMARE members attended the Workshop and Regional meetings organized by the Regional Co-ordinators (members 5-10) in concert with the general co-ordinators (table 1).

Several institutes from the New Associated States (Estonia, Bulgaria) and from areas where gaps in Reference sites were expected (Portugal, Canaries), were invited to, and joined, the Regional meetings. Their integration in BIOMARE was successful.

A third Steering Committee Meeting was organised in April during the Regional Meeting in Horta, Azores, (see appendix) to discuss the progress, to prepare the actions in the Regional Meeting, and to decide on the second Workshop to be held in Tromsø, northern Norway, at the beginning of September 2002.

The BIOMARE website (<http://www.biomareweb.org>) has been regularly updated. It includes details of the project objectives, work packages, participants and the first Newsletter. The results on the Links are provided to key marine biodiversity and biodiversity websites. Promotion has been through the website and at BIOMARE regional meetings.

At present over 5000 'hits' have been made on the BIOMARE site.

For WP3 it was decided to develop further 1) databases on researchers and managers on marine biodiversity issues, 2) databases on marine biodiversity datasets, and 3) the dissemination to the managers and public in large through some brochures (flyers)

**Table 1.** Meetings organised within the BIOMARE Concerted Action

| Date          | Organiser of meeting  | Type of meeting                       | Target group   | Location of meeting |
|---------------|---|---------------------------------------|--|---------------------|
| November 2000 | NIE (Netherlands Institute of Ecology)  | Steering Committee Meeting            | Steering committee members                                     | Yerseke, NL         |
| April 2001    | IO (Institute of Oceanology)  | Regional Meeting                      | Members of the Arctic/Atlantic and the Baltic/North Sea groups | Sopot, Pl           |
| May 2001      | NIE (Netherlands Institute of Ecology), in concert with ESF, EC, UNESCO, and MARS | Euroconference on Marine Biodiversity | All researchers and managers on marine biodiversity            | Corinth, Gr         |
| May 2001      | IMBC (Institute of Marine Biology Crete)  | Regional Meeting                      | Members of the Mediterranean group                             | Corinth, Gr         |
| October 2001  | IMEDEA  | Steering Committee Meeting            | Steering committee members                                     | Palma de Mallorca   |
| November 2001 | IMEDEA  | Workshop                              | All members  | Palma de Mallorca   |
| March 2002    | IMBC (Institute of Marine Biology Crete)  | Regional Meeting                      | Members of the Mediterranean and Baltic/North Sea groups       | Iraklion, Gr        |
| April 2002    | IMAR Department of Oceanography and Fisheries                                     | Steering Committee Meeting            | Steering committee members                                     | Horta, Azores       |
| April 2002    | IMAR Department of Oceanography and Fisheries                                     | Regional Meeting                      | Members of the Arctic/Atlantic group                           | Horta, Azores       |

The first edition of the BIOMARE Newsletter was published in November 2001. The publication was in hard copy (limited print run) and electronically (pdf format) via the website and BIOMARE mailing list. Copies of the newsletter will be archived on the website.

The following specific international publications on BIOMARE have been made in the reported period:  
 - Heip, C. & H. Hummel, 2002. Marine biodiversity in Europe. The Parliament – Magazine 134: 40.  
 - Hummel, H, 2001. BIOMARE - Implementation and Networking of large-scale long-term Marine Biodiversity research in Europe. Coastline 10: 10-15.

BIOMARE was introduced at some (inter)national meetings (see further Ch. 1.5, table 5).

An overview of the planned and used manpower is given in table 2, of the planned versus the executed and future tasks is given in table 3, and the time schedule in table 4.

### **1.2.2. Plans for the following months**

The Independent Committee will decide on a second selection of Reference Sites (WP1). The final results will be presented at the Regional Meetings of March and April 2002.

Two additional meetings with the general and WP co-ordinators are planned in June and July 2002, in order to evaluate and finalize the results obtained in WP1 (reference sites) and WP2 (biodiversity indicators), and to prepare the workshop in Tromsø.

### Newsletter

The second edition of the BIOMARE newsletter will be published in June 2002, and a third in November 2002.

### Databases

The BIOMARE database of researchers and scientists interested in marine biodiversity will be further developed. Each member has been contacted and contact details checked for inclusion in the mailing list. The results of the database may be published via the BIOMARE website. Additional researchers and scientists will be encouraged to join the mailing list at meetings and through the newsletter. The expansion of the database is ongoing.

A metadata database of long term large scale marine biodiversity datasets and species inventories will be developed. The results of the database will be further published via the BIOMARE website. Initial results will be presented at the September BIOMARE workshop. This metadata database will be further developed and promoted through the mailing list, website and newsletter.

Collaboration with the MARS network will continue to collate and disseminate information on facilities and equipment of European institutes involved in marine biodiversity research, and options for training (courses) and mobility of students and researchers.

### Website

The project website will be further developed to publish project results and dissemination products. This will include the details of long term large-scale marine biodiversity datasets and regional species inventories, results of the bioindicators and flagship and reference site work packages.

The results of a questionnaire developed through the MARS network will be published on the website. The questionnaire outlines the facilities and resources available at institutes in the MARS network for marine biodiversity research and will be further expanded to include additional institutes in the BIOMARE network.

The website will promote BIOMARE meetings, conferences and workshops relating to marine biodiversity, training opportunities for marine biodiversity researchers and employment and research vacancies.

The project will be continued to be promoted through international and national workshops and meetings and through the publication of articles in research journals and newsletters for example the Marine Biological Association newsletter.

### Brochure

A brochure publicising the projects aims and objectives and provisional results will be produced. This will be published in the second half of 2001 and be aimed at a broader non-scientific audience.

### **1.2.3. Manpower**

The input of manpower to the BIOMARE Concerted Action was again much higher than planned (table 2). The higher input has been primarily buffered by the input of the many permanent staff members and institutes allowing their temporary staff to work for the project.

### **1.3. Milestones and deliverables obtained (start project 01-11-2000)**

The deliverables obtained, and those planned for the coming months, are indicated in table 3.

**Table 2.** Comparison between planned and used manpower (all efforts are expressed as person-days; 1 year equals 1680 productive hours: 8 hours per day; in the totals the person-months efforts are indicated between brackets; P = input by permanent staff, M = input by additional management).

|                          | First year       |               |                  |               | Second year      |               |                  |               | Total    |                     |
|--------------------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|----------|---------------------|
|                          | First half year  |               | Second half year |               | First half year  |               | Second half year |               | Planned  | Realized (May 2002) |
|                          | Planned manpower | Used manpower | Planned          | Used manpower | Planned manpower | Used manpower | Planned manpower | Used manpower |          |                     |
| <b>Member No. / task</b> |                  |               |                  |               |                  |               |                  |               |          |                     |
| 1. Coordinator           | P                | 12            | 23               | 2             | 55               | 12            | 54               | 9             | 35 (2)   | 132                 |
|                          | M                | 57            | 57               | 48            | 69               | 60            | 57               | 45            | 210 (12) | 183                 |
| 2. WP Leader             | P                | 8             | 12               | 2             | 3                | 15            | 15               | 10            | 35 (2)   | 30                  |
|                          | M                | 29            | 29               | 23.5          | 29               | 30            | 30               | 22.5          | 105 (6)  | 88                  |
| 3. WP Leader             | P                | 8             | 15               | 2             | 10               | 15            | 15               | 10            | 35 (2)   | 40                  |
|                          | M                | 29            | 85               | 23.5          | 50               | 30            | 42               | 22.5          | 105 (6)  | 177                 |
| 4. WP Leader             | P                | 8             | 8                | 2             | 6                | 15            | 15               | 10            | 35 (2)   | 29                  |
|                          | M                | 29            | 18               | 23.5          | 32               | 30            | 10               | 22.5          | 105 (6)  | 60                  |
| 5. Regional co-ord.      | P                | 8             | 16               | 2             | 9                | 15            | 15               | 10            | 35 (2)   | 40                  |
|                          | M                | 15            | 16               | 11.25         | 16               | 15            | 20               | 11.25         | 52.5 (3) | 52                  |
| 6. Regional co-ord.      | P                | 8             | 12               | 2             | 20               | 15            | 16               | 10            | 35 (2)   | 48                  |
|                          | M                | 15            | 15               | 11.25         | 22               | 15            | 15               | 11.25         | 52.5 (3) | 52                  |
| 7. Regional co-ord.      | P                | 8             | 8                | 2             | 30               | 15            | 30               | 10            | 35 (2)   | 68                  |
|                          | M                | 15            | 17               | 11.25         | 15               | 15            | 20               | 11.25         | 52.5 (3) | 52                  |
| 8. Regional co-ord.      | P                | 8             | 8                | 2             | 55               | 15            | 15               | 10            | 35 (2)   | 78                  |
|                          | M                | 15            | 15               | 11.25         | 30               | 15            | 15               | 11.25         | 52.5 (3) | 60                  |
| 9. Regional co-ord.      | P                | 8             | 10               | 2             | 5                | 15            | 15               | 10            | 35 (2)   | 30                  |
|                          | M                | 15            | 20               | 11.25         | 10               | 15            | 15               | 11.25         | 52.5 (3) | 45                  |
| 10. Regional co-ord.     | P                | 8             | 15               | 2             | 10               | 15            | 23               | 10            | 35 (2)   | 48                  |
|                          | M                | 15            | 15               | 11.25         | 0                | 15            | 15               | 11.25         | 52.5 (3) | 30                  |
| 11. Regular member       | P                | 9             | 30               | 0             | 26               | 18            | 10               | 8             | 35 (2)   | 66                  |
| 12. Regular member       | P                | 9             | 8                | 0             | 0                | 18            | 5                | 8             | 35 (2)   | 13                  |
| 13. Regular member       | P                | 9             | 10               | 0             | 6                | 18            | 12               | 8             | 35 (2)   | 28                  |
| 14. Regular member       | P                | 9             | 6                | 0             | 3                | 18            | 41               | 8             | 35 (2)   | 50                  |
| 15. Regular member       | P                | 9             | 12               | 0             | 0                | 18            | 8                | 8             | 35 (2)   | 20                  |
| 16. Regular member       | P                | 9             | 10               | 0             | 1                | 18            | 8                | 8             | 35 (2)   | 19                  |
| 17. Regular member       | P                | 9             | 8                | 0             | 2                | 18            | 20               | 8             | 35 (2)   | 30                  |
| 18. Regular member       | P                | 9             | 10               | 0             | 12               | 18            | 25               | 8             | 35 (2)   | 47                  |
| 19. Regular member       | P                | 9             | 8                | 0             | 0                | 18            | 40               | 8             | 35 (2)   | 48                  |
| 20. Regular member       | P                | 9             | 12               | 0             | 0                | 18            | 5                | 8             | 35 (2)   | 17                  |
| 21. Regular member       | P                | 9             | 6                | 0             | 0                | 18            | 40               | 8             | 35 (2)   | 46                  |
|                          |                  |               |                  |               |                  |               |                  |               |          |                     |
| Total Person-Days        | P                | 183           | <b>247</b>       | 20            | <b>253</b>       | 345           | <b>427</b>       | 187           | 735 (42) | <b>927</b>          |
|                          | M                | 234           | <b>287</b>       | 186           | <b>273</b>       | 240           | <b>239</b>       | 180           | 840 (48) | <b>799</b>          |

**Table 3.** List of obtained and planned deliverables in the BIOMARE Concerted Action

| Deliverable No | Deliverable title   | Delivery month (draft) | Progress and Status report on milestones and deliverables (01-11-2000 – 01-05-2002)   | Planned   |
|----------------|---|------------------------|---|---|
| <b>WP 1</b>    | <b><u>Reference sites for marine biodiversity</u></b>   |                        |   |   |
| 1.1            | Outline of criteria for site selection  | (12) 24                | Evaluation form and list of criteria for reference sites finalised and accepted   | Decision will be communicated at Workshop in Tromsø   |
| 1.2            | Recommendation on areas suitable as 'reference sites', and institutions responsible to integrate and lead the research.   | (12) 24                | List and map of accepted reference sites constructed and published at internet ( <a href="http://www.biomareweb.org">http://www.biomareweb.org</a> ). | Final classification will be communicated at Workshop in Tromsø   |
| 1.3            | Protocol for institutes participating in long-term monitoring of marine biodiversity  | (12) 24                | First Memorandum of Understanding communicated to proposers of sites  | Final protocol will be communicated at Workshop in Tromsø   |
| 1.4            | Review of available data (species and habitat lists, maps, collections, publications) for sites with background data on biodiversity and ecosystem function in Europe | (12) 24                | First metadatabases published at internet ( <a href="http://www.biomareweb.org">http://www.biomareweb.org</a> ).                                      | Input of new contributions to Metadatabases open through the BIOMARE website  |
| 1.5            | Comparisons of species lists for best studied sites and deduce what they indicate regarding habitat diversity, research efforts                                       | (12) 24                | Lists being prepared by WP-leader   | Examples of lists will be presented at Workshop in Tromsø   |
| 1.6            | Criteria for accessibility, and compatibility of data-banks connected to (potential) reference sites  | (12) 24                | Criteria discussed at Regional Meetings in March/April 2002.  | Criteria will be published at internet ( <a href="http://www.biomareweb.org">http://www.biomareweb.org</a> )                                    |
| 1.7            | Critical review of data and identification of gaps in existing data and knowledge   | 24                     | Discussed at Regional Meetings in March/April 2002.   | To be further discussed at 2 additional co-ordinators meetings in June-July 2002  |
| 1.8            | Potential role of new methods, e.g. bio-physical modelling approaches and remote sensing techniques   | 24                     | Discussed at first Workshop in November 2001 at Palma and Regional Meetings in March/April 2002.  | Results to be incorporated in protocols of WP1 and WP2  |
| <b>WP 2</b>    | <b><u>Indicators of marine and coastal biodiversity at a European scale</u></b>   |                        |   |   |
| 2.1            | Sets of standardised indicators   | (12) 24                | Second drafts discussed at Regional Meetings in March/April 2002.   | To be further discussed at 2 additional co-ordinators meetings in June-July 2002, and final protocol will be communicated at Workshop in Tromsø |
| <b>WP 3</b>    | <b><u>Capacity building, dissemination and networking to facilitate marine biodiversity research and integration with socio-economic questions</u></b>                |                        |   |   |

|     |   |                      |  |  |
|-----|---|----------------------|--|--|
| 3.1 | Expanded network of students, researchers and managers on marine biodiversity (including links with members of MARS)  | (12)<br>24           | This has been achieved as is ongoing through the development of the BIOMARE contacts database and promotion of the project via the website and newsletters. Additional institutes have been contacted and accepted the invitation to fill-in geographical gaps | This will continue through the duration of the project. A project brochure (flyer) has been produced to facilitate this  |
| 3.2 | Improved dissemination through<br>a) an internet web-site, including an electronic newsletter,<br>b) reports and publications in scientific and applied journals for specialists and non-specialists  | (12)<br>24           | a) The website has been established and the first newsletter has been published electronically and in hard copy.<br>b) Several publications have been produced.  | a) The next newsletter will be published in June 2002<br>b) This will continue through the duration of the project, and a special issue in Helgoland Marine Research is foreseen |
| 3.3 | Overview of ongoing research programs, facilities and equipment of European institutes involved in marine biodiversity research   | (12)<br>24           | A draft questionnaire, based on information from the MARS network, has been developed  | Questionnaire will be send to members in June 2002   |
| 3.4 | Overview of possibilities for training (courses) and mobility of students and researchers at member institutes, in the field of marine biodiversity (in co-operation with the MARS Network)   | (12)<br>24           | A draft questionnaire, based on information from the MARS network, has been developed  | Questionnaire will be send to members in June 2002   |
| 3.5 | Meetings, conferences on marine biodiversity  | 6, 17<br>/ 13,<br>22 | See overview in table 1  | 2 additional co-ordinators meetings in June-July 2002, a workshop in Tromsø in September 2002, and a final steering committee meeting in October 2002                            |
| 3.6 | Reviews and checklists on marine biodiversity and reference sites, including<br>a) manuals of the different selected habitats for marine biodiversity research (WP1),<br>b) protocols of agreed methodologies and indicators of marine biodiversity (WP2),<br>c) database of available datasets and associated publications           | (12)<br>24           | Drafts have been prepared and are now available via the website  | These will be developed following the results of the other work packages and collation of information on long term biodiversity monitoring datasets.                             |
| 3.7 | Protocols on integration of:<br>a) different formats used for databases (incl. those used at reference sites (deliverable 1.6) and those used in other relevant related studies (e.g. for monitoring or species registration)), and<br>b) socio-economic questions, e.g. on the impact of tourism or fisheries on marine biodiversity | (12)<br>24           | Drafts have been prepared  | These will be developed following the results of the other work packages and collation of information on long term biodiversity monitoring datasets.                             |

#### 1.4. Deviations from the work plan or /and time schedule and their impact to the project

All activities and meetings were organized and conducted according to the agreed time schedule (table 4).

**Table 4.** Time-table for the BIOMARE Concerted Action. Dark-grey cells indicate the part that is covered by this Management Report.

|                                    | 2000 | 2001 |   |   |   |   |   |   |   |   |   |   |   | 2002 |   |   |   |   |   |   |   |   |   |   |
|------------------------------------|------|------|---|---|---|---|---|---|---|---|---|---|---|------|---|---|---|---|---|---|---|---|---|---|
|                                    | N    | D    | J | F | M | A | M | J | J | A | S | O | N | D    | J | F | M | A | M | J | J | A | S | O |
| Steering Committee meetings        | s    |      |   |   |   |   |   |   |   |   |   |   |   |      |   |   |   |   |   |   |   |   |   | s |
| Inventories by leaders of WP's     |      | i    | i | i | i | i | i | i |   |   |   |   |   |      |   |   |   |   |   |   |   |   |   |   |
| Local meetings (m); workshop (W)   |      |      |   |   | M |   |   |   |   |   |   |   | W |      |   |   | m | m |   |   |   |   |   | W |
| Draft reports, protocols ...       |      |      |   |   |   |   |   | r | r | r | r |   |   |      |   |   |   |   |   |   |   |   |   |   |
| Adjusting/completion reports, ...  |      |      |   |   |   |   |   |   |   |   |   |   | r | r    | R |   |   |   | r | r | r | r |   | r |
| Final implementation/dissemination |      |      |   |   |   |   |   |   |   |   |   |   |   |      |   |   |   |   |   |   |   |   |   | d |

#### 1.5. Co-ordination of the information between partners and communication activities

A database of contact details of researchers and scientists involved or interested in marine biodiversity has been established. This builds on the database developed for the European Register of Marine Species and MARS network mailing lists.

A BIOMARE -Newsletter outlining the project aims, methods and progress has been published. An electronic version is available via the website. The newsletter includes articles on regional biodiversity issues and from young biodiversity researchers.

A draft questionnaire requesting information on long term large scale marine biodiversity datasets and regional species inventories has been sent to the regional co-ordinators. Preliminary results were requested for mid October and were presented at the BIOMARE workshop in November 2001. The provisional results are available via the project website. Information collection is ongoing

In Poland an educational TV program (ATE Gdansk), including BIOMARE information, is currently prepared. It will be a major documentary on nature in Poland with the provisional title "Natural history of Poland", and expected to be released in 2003. A popular scientific public event was organised 16<sup>th</sup> of June in Gdynia (Poland) entitled: Marine Biodiversity in Baltic Sea. Biomare leaflet and posters were presented with a number of thematic presentations. Over 2000 visitors attended during the 6 hours long event. Local radio, TV and press covered the event.

The BIOMARE Concerted Action was communicated at many international meetings (table 5).

**Table 5.** International meetings at which BIOMARE was introduced.

| Date          | Organiser of conference                        | Title of conference  | Title of presentation   | Location of conference |
|---------------|--|--|---|------------------------|
| December 2000 |  | 2nd Scientific Picknic (popular-scientific public event with over 2000 visitors) | BIOMARE   | Gdynia, Poland         |
| March 2001    | Institute of Biomedical Sciences               | 25 <sup>th</sup> anniversary of Aquatic Sciences Program                         | Protection and conservation of biodiversity                                 | University of Porto    |
| May 2001      | European Science Foundation                    | Regional BOOSE (Baltic Operational Oceanography System)                          | BIOMARE   | Gdansk, Poland         |
| May 2001      | European Science Foundation                    | Polar Region Biodiversity  | BIOMARE   | Cambridge, UK          |
| May 2001      | European Science Foundation EURESCO conference | Biodiversity of coastal marine ecosystems  | a) Species information systems<br>b) Marine biodiversity: an urgent need of | Corinth, Greece        |



|               |   |   | indicators   |   |
|---------------|---|---|--|---|
| June 2001     |   | International Conference on Coastal Ecosystems functioning                            | BIOMARE (poster)   | Gdansk, Poland                                      |
| June 2001     | University of Kyoto   | Diversity International of the Western Pacific Area (DIWPA)"                          | Aims and procedures of BIOMARE   | Shirahama, Japan                                    |
| July 2001     | International Polychaete Conference   | Seventh International Polychaete Conference, 2-6 July 2001, Reykjavik, Iceland        | Testing hypotheses on polychaete species diversity along the Mediterranean and the Black Sea: Numbers, patterns, coefficients and environmental variables associated | Reykjavik, Iceland.                                 |
| July 2001     | London University   | Detecting Environmental Change  | BIOMARE  | London, England                                     |
| July 2001     | CERCI   | Scarborough Centre for Coastal Studies First Annual Conference                        | Changing Coastal Margins   | University of Hull - Scarborough Campus, UK         |
| August 2001   | Siberian division of Russian Academy of Sciences  | INTAS meeting   | Assessment of the marine environment health: use of bioindicators (T Perez)  | Limnological Institute of Irkutsk, Siberia, Russia. |
| October 2001  |   | Polar Regions Comparative Research  | BIOMARE  | Sopot, Poland                                       |
| November 2001 |   | 5th International Conference on the Environmental Management of Enclosed Coastal Seas | Towards Coastal Zone Management, and, BIOMARE and its role in disseminating information on biodiversity  | Kobe, Awaji Island, Japan                           |
| November 2001 |   | Flamborough Head Maritime Forum   | BIOMARE  | Bridlington, UK                                     |
| November 2001 | Baltic Marine Biologists  | 17 <sup>th</sup> BMB Symposium (Committee Meeting)                                    | BIOMARE  | University of Stockholm                             |
| December 2001 | Institute of Estuarine and Coastal Studies  | 10th Meeting of the North-East England Marine Group                                   | BIOMARE  | University of Hull - Scarborough Campus, UK         |
| February 2002 | Census of Marine Life, Canadian Department of Fisheries and Oceans, Centre of Marine Biodiversity | 1st National workshop on Canadian Biodiversity  | Marine biodiversity metrics  | White Point, Nova Scotia                            |
| April 2002    | University of Groningen   | Arctic Ocean Sciences Board Annual meeting  | Biodiversity in Polish Arctic Programme  | Groningen, Netherlands                              |
| April 2002    | Akvaplan-niva, Polar Environmental Centre   | Meeting of the ICES, Benthic Ecology Working Group                                    | Overview of BIOMARE aims and progress  | Tromsø, Norway                                      |
| June 2002     | English Nature  | Flamborough Head Maritime Forum   | BIOMARE  | University of Hull, Scarborough Campus, UK          |
| July 2002     | Programme National Environnement Côtier PNEC  | Workshop on Marine Bioindicators  | BIOMARE  | Centre IRD de Noumea, Nouvelle Calédonie            |

### 1.6. Difficulties encountered at management and co-ordination level and proposed/applied solutions

So far no problems were encountered.

Participants information

| N° | Institution/Organisation  | Street name and number         | Post Code | Town/City          | Country Code | Title     | Family Name   | First Name  | Telephone N°     | Fax N°           | E-Mail                           |
|----|---|--------------------------------|-----------|--------------------|--------------|-----------|---------------|-------------|------------------|------------------|----------------------------------|
| 1  | Netherlands Institute of Ecology, Centre for Estuarine and Coastal Ecology (NIOO-CEMO)  | Korringaweg 7                  | 4401 NT   | Yerseke            | NL           | Prof. Dr. | Hummel        | Herman      | (31-113)-577484  | +31-113-573616   | Hummel@cemo.nioo.knaw.nl         |
| 1  | Id.   | Id.                            | Id.       | Id.                | Id.          | Prof. Dr. | Heip          | Carlo       | (31-113)-577445  | Id.              | Heip@cemo.nioo.knaw.nl           |
| 1  | Id.   | Id.                            | Id.       | Id.                | Id.          | Drs.      | Van Avesaath  | Pim         | (31-113)-577473  | Id.              | Avesaath@cemo.nioo.knaw.nl       |
| 1  | Id.   | Id.                            | Id.       | Id.                | Id.          |           | Davidse       | Theo        | (31-113)-577438  | Id.              | Davidse@cemo.nioo.knaw.nl        |
| 2  | Centre for Coastal and Marine Sciences, Plymouth Marine Laboratory (PML)                | Prospect Place, West Hoe       | PL1 3DH   | Plymouth           | UK           | Dr.       | Warwick       | Richard     | (44-1752)-633438 | (44-1752)-633101 | r.warwick@pml.ac.uk              |
| 2  | Centre for Coastal and Marine Sciences, Plymouth Marine Laboratory (PML)                | Prospect Place, West Hoe       | PL1 3DH   | Plymouth           | UK           |           | Dashfield     | Sarah       | (44-1752)-633100 | (44-1752)-633101 | sldas@pml.ac.uk                  |
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