

**MARINE BOARD - EUROPEAN SCIENTIFIC DIVING PANEL
(MB-ESDP)**

Eighth Meeting – 04 July 2012

ESF-COST Office, Brussels

MINUTES

		ACTIONS
1. Welcome and Present	<p>JP Féral (France), M Sayer (UK), A Norro (Belgium), P Kekäläinen (Finland), K Larkin (Marine Board)</p> <p>G Caramanna (Italy/UK) –part of the meeting (Skype)</p> <p>P Fischer (Germany), R Lindblom (Sweden) – apologies</p>	
2 & 3. Minutes of last meeting and updates on actions	<p>Some changes still required to minutes of last meeting. These have now been included. MARTIN to circulate final record of the 7th meeting.</p> <p>MB SECRETARIAT / PHILIPP: have been in discussion regarding a better integration with EU vessels supporting SD. Should be better input from SD with groups such as ERVO, EUROFLEETS. PHILIPP will arrange a tele-conference regarding a database of vessels supporting diving in July.</p> <p>Update on consultation documents N° 2 and 3. Consultation document N° 2 was discussed and approved by the MB Plenary in May 2011; document N° 3 was discussed and approved by the MB Plenary in October 2011. Discussed how the documents should be disseminated – should ESDP website be the main site for the consultation documents? Both websites presently don't carry details of the COST meeting. Both</p>	<p>MARTIN: circulate final minute of 7th ESDP meeting.</p> <p>KATE: to follow up how/if ESDP is better integrated with ERVO and/or EUROFLEETS.</p> <p>PHILIPP: to report on tele-conference between ESDP, Marine Board and Large Research Vessel Groups to regarding a database of vessels supporting diving.</p> <p>KATE: to circulate the final versions of N° 2 and 3. All documents (final official versions) to be uploaded to ESDP website</p>

	<p>websites need updating.</p> <p>Production of a flyer for ESDP: discussion on what funding was available from the MB.</p> <p>MB review stated that ESDP must expand the membership. All realise the difficulties of attracting a wider membership without funding for travel. It was clear from the last COST action (2010) that funding produced a wider and more productive membership. Some discussion about how ESDP can revise (or begin a new) the COST proposal (see below). A successful COST action could aid the expansion of membership and increasing the visibility of Europe internationally. Note: no update on what is being done with present COST action.</p> <p>PIRKKO has potential database management software and is examining its use for organising scientific diving literature</p> <p>ESDP/AAUS – set for 21-28 October 2013 (see below); funding could be an issue.</p> <p>How to develop a national committee? No progress has been made on this. Decided that the best way forward would be to give some generic guidelines, followed by examples from the existing and aspiring Panel members of how their own particular national committees were established. Possible consultation document N° 4 – could be combined with a questionnaire to generate information into the ESDP.</p> <p>National links were tested. Belgium committee has no webpage; France has to move the current webpage.</p>	<p>(which requires updating)</p> <p>KATE: to find out what funding was available from MB for publication</p> <p>ALL: to submit a brief paragraph to Marine Board Secretariat (Kate) outlining the history behind the development of the national committees and detail where they sit within national law, etc.</p> <p>ALAIN/J-P: to create / move websites.</p>
<p>4. National updates and international interactions</p>	<p>National updates:</p> <p><i>France</i> – Scientific diving is not a priority in the publication of the new regulations (commercial diving [ranked “a”], etc., comes first, “scientific diving” is ranked “g”). The new regulations for scientific diving (which includes the ESD/AESD) are written but have still to be finally approved. The “old” decree is still in force.</p>	

	<p><i>Belgium</i> – Running courses at ESD and AESD levels. Recognition of ESD&AESD levels to already certified and experienced scientific diver is completed in Belgium.</p> <p><i>Germany</i> – No update related to any discussions between KFT and GAUSS.</p> <p><i>Finland</i> – No significant changes. ESD and AESD are recognised diving qualifications.</p> <p><i>UK</i> – No significant changes. ESD and AESD are recognised diving qualifications in UK law.</p> <p><i>Italy</i> – 22 AESD and 4 ESD certified. The Italian Coastguard will recognise scientific divers should be used on scientific diving projects within the correct areas of competence. AIOSS have also contacted the Italian health and safety body for them to recognise the position of “scientific diver” as a professional worker. Training for health and safety medical doctors, that is pertinent to scientific diving, will be held in November..</p> <p><i>Sweden</i> - The ESD and AESD levels are fully recognized as levels for scientific professional diving.</p> <p><i>No other national reports</i></p>	
<p>5. COST Presentation</p>	<p>J-P presented an overview of the ESDP.</p> <p>Dr Başak Kısakürek, COST Science Officer, Domain Earth System Science and Environmental Management:</p> <ul style="list-style-type: none"> - Outcome: leverage of national funding; - Open to global co-operation (institutes) on the base of mutual interest; - COST actions are networks of <u>nationally funded projects</u>; - Must demonstrate added value; - Minimum of 5 countries (average 20 join); - Networking tools: science management meetings, working group meetings, scientific workshops & seminars, training schools, scientific exchange visits, dissemination/publications; - Next collection date: 28 September 2012; - 6 months time-line from preliminary proposal to COST Action start. - Advised to examine the COST guidelines (examine assessment criteria – networking needs to be highlighted); 	

	<ul style="list-style-type: none"> - MoUs of successful applications give a lot of guidance on how to construct a proposal; - Typical funding (based on avg of 20 countries) is €130-140k per annum (total cost); - Only 15% of funding (average €21k) is available for administrative support requiring in-kind contribution for management by the host organisation. - Consider trans-domain application (Technology / georeferencing?); - Reciprocal agreements exist with non-COST countries Australia, South Africa, New Zealand, Argentina (i.e. small funds by the country and ESF for networking etc). - Single stand-alone meetings may still be funded through COST. Applications need to be made through national domain representatives. 	
<p>6. ESDP discussion on COST ACTION</p>	<p>MB review recommendation / advice was that we should re-submit a/the COST proposal.</p> <p>The meeting encouraged Philipp to continue with the existing proposal. It was unclear to the meeting what was the current status of the Biodiversity proposal. There was some discussion as to whether it would be counter-productive having two proposals in at the same time. Dr Kisakürek didn't seem to think this would be a problem as each proposal is considered individually.</p> <p>Martin suggested another potential COST proposal together based on the standardisation of scientific diving techniques / technologies with an underlying overall objective of creating a global network of diving-based coastal observatories. Martin will try and get the 5-page outline pre-proposal for circulation.</p>	<p>PHILIPP: to update the ESDP on the current status of his COST proposal</p> <p>MARTIN: to draft a new proposal. The draft would have to be circulated by end of July.</p>
<p>7. Discussion on SD methodologies</p>	<p>ALAIN – hard substrate sampling using scientific diving technique. MUMM sampling on wind parks, wrecks and refuge habitats. On wind turbines, perform vertical and horizontal transects – video, and permanent transects, rock sampling on scour protection, plus scrubbing (25x25cm). Artificial rocks are deployed for biofouling / settlement. Wrecks: mapping using multibeam; destructive and non-destructive quadrats – counting and coverage; baited traps; bottom water / sediment sampling; Photo/video transects. Refuge habitats: gravel bed mapping; ground-truthing / calibration data for sonar; diver georeferencing. Direct measurements of sand thickness (geo referenced video footage available) Employ the ESDP guidelines for diving off research vessels. Generated a number of publications (appended).</p>	

	<p>J-P F – Hard substrate research on coralligenous habitats and caves; and various biogenic Mediterranean habitats. A variety of highly complex habitats only available to study using scientific diving. Fixed transects; red coral growth studies (fluorescein markers); u/w photography (3 forms; three types of image-analysis will be compared). Working toward quantitative indices of habitat complexity / health.</p> <p>MARTIN – Hard substrate research on artificial and natural reef systems. Used photoquadrats, visual surveys, settlement panels, fractals for habitat complexity measurement. Undertaken a number of studies to validate/calibrate the methodologies employed. Publications appended.</p>	
8. ESDP / AAUS conference	A joint ESDP/AAUS meeting was a MB recommendation: Set for Curacao: Oct 23-27, 2013. Scientific Diving Committee has been established. Costs for travel and accommodation are considered to be reasonably high for European scientists. An application to COST will go forward to assist attendance / guest speakers.	MARTIN: to keep ESDP updated on progress for this meeting.
9. Discussion on renewal of ESDP chair / ESDP membership	<p>ESDP chair needs to change in October 2012. Noted that the ESDC constitution did not transfer to ESDP. There may be guidance from other MB panels in how to conduct the process. Candidates should email Kate within one month of next meeting. Some discussion on how the process should be done (members/associates etc.).</p> <p>Draft of terms of reference (ToR) for the ESDP was reviewed. Considered the ToR require updating. Was also considered that all known or prospective national representatives should be contacted regarding the ESDP. Need to check/revise/update the ESDP group email. Agreed that the currently listed national contacts on the ESDP website will be contacted asking them to check the details on the website. At the same time they will be told the date of the next ESDP meeting and inviting them to attend.</p>	<p>KATE: to circulate reminder about change of chair and requesting candidates by end of September</p> <p>JOUNI: to revise/update the ESDP email list and circulate to ESDP</p> <p>KATE: to coordinate a revision of ‘guidelines for newcomers’ and send out communication to wider ESDP membership</p> <p>KATE: to co-ordinate a revision of the ESDP ToR.</p>
10.	Selected papers from the ISOSD-3 meeting have been	

<p>Miscellaneous</p>	<p>published in <i>Underwater Technology</i> 30(4) (July 2012).</p> <p>German Science activities: There will be a larger press release in August on the new underwater research field off Helgoland (Margate) where the Center for Scientific Diving of AWI is just installing a UW-node for international underwater research. They have installed the same uw-node this year already in Spitzbergen and start cooperation with French colleagues (IPEV, French Polar Institute).</p> <p>ESDP flyer – recognise the next 4 years as a MB Panel. Need to establish if MB will pay for design and printing (about 500 copies)</p> <p>ESDP/MB websites – Link to ESDP (Marine Board page) from ESDP page requires updating; link to 2013 ISOSD-4. Marine Board ESDP page to be updated with the final versions of the approved consultation documents.</p> <p>ESDP chair to attend MB Plenary session in May 2013 to explain how the ESDP has responded to the recommendations of the last review (KATE to circulate). MB review – ESDP mission statement requires revision.</p> <p>ASSEMBLE meeting on scientific diving to be held at Oban in October 2012.</p>	<p>PIRKKO: to liaise with Jouni re:ESDP website</p> <p>KATE: to update MB-ESDP site.</p> <p>KATE: to circulate MB review recommendations. Mission statement to be revised (inviting members to make suggestions)</p>
<p>11. Date / place of next meeting</p>	<p>Confirmed: 31 October 2012 – COST Office, Avenue Louise. Considered that proposals from the wider ESDP members could be invited to host a ESDP meeting in 2013 to try and increase the breadth of membership (in line with MB recommendations).</p> <p><i>If October meeting is in Brussels so there is the chance of another visit to NEMO-33 the night before ESDP meeting?</i></p>	

SUMMARY OF ACTION POINTS

- MARTIN: circulate final minute of 7th ESDP meeting.
- KATE: to follow up how/if ESDP is better integrated with ERVO and/or EUROFLEETS.
- PHILIPP: to report on tele-conference between ESDP, Marine Board and Large Research Vessel Groups to regarding a database of vessels supporting diving.
- KATE: to circulate the final versions of No 2 and 3. All documents (final official versions) to be uploaded to ESDP website (which requires updating)
- KATE: to find out what funding was available from MB for publication/dissemination activities
- ALL: to submit a brief paragraph to Kate outlining the history behind the development of the national committees and detail where they sit within national law, etc.
- ALAIN/J-P: to create / move websites.
- PHILIPP: to update the ESDP on the current status of his COST proposal
- MARTIN: to draft a new COST proposal. The draft would have to be circulated by end of July.
- MARTIN: to keep ESDP updated on progress for the joint ESDP/AAUS meeting in 2013.
- KATE: to circulate reminder about change of chair and requesting candidates by end of September. At the same time could circulate guidelines for new-comers (the document made for the 2010 COST workshop)
- JOUNI: to revise/update the ESDP email list and circulate to ESDP
- KATE to coordinate a revision of 'guidelines for newcomers' and send out communication to wider ESDP membership inviting updates to contacts/SD status and notifying wider members about ESDP activities e.g. next meeting, invite proposals from wider members to host a ESDP meeting in 2013.
- KATE to co-ordinate a revision of the ESDP ToR.
- PIRKKO: to liaise with Jouni re: ESDP website
- KATE: to update MB-ESDP site.
- KATE: to circulate MB review recommendations. Mission statement to be revised (inviting members to make suggestions)

PUBLICATIONS REFERRED TO IN THE PRESENTATIONS

NORRO:

- Degrendele K., Houziaux J.S, Norro A, Roche M. (2010). Intérêt de la plongée scientifique pour la caractérisation de visu et le contrôle des classes acoustiques définies par sondeur Multifaisceaux. Bilan général des campagnes de mesures 2004-2010 et perspectives. 54 pp Mumm internal report.
- Zintzen V., Norro A., Massin C., Mallefet J. (2008). Spacial variability of epifaunal communities from artificial habitat: shipwrecks in the Southern Bight of the North Sea. *Estuarine, Coastal and Shelf Science* **76**, 327-344
- Zintzen, V.; Norro, A.; Massin, C.; Mallefet, J. (2007). The hydroid *Tubularia indivisa* (Cnidaria, Tubulariidae) plays a structural role on artificial habitat communities, in: Zintzen, V. (2007). Biodiversity of shipwrecks from the Southern Bight of the North Sea. pp. 229-265
- Kerckhof F., Norro A., Jacques T.G & Degraer S. (2009). Early colonisation of a concrete Offshore windmill foundation by marine biofouling on the Thornton Bank (southern North Sea) In: Degraer, S., R. Brabant eds. Offshore wind farms in the Belgian part of the North Sea. State of the art after two years environmental monitoring. pp 39-51.
- F.Kerckhof , R.Rumes, T.Jacques, S.Degraer and A.Norro. (2010). Early development of the subtidal marine biofouling on a concrete offshore windmill foundation on the Thornton Bank (southern North Sea)/ First monitoring results/ International Journal of the Society for Underwater Technology, Vol. 29, N°3, pp 1-13, 2010
- Zintzen V., Norro A., Massin C., Mallefet J. (2006). Epifaunal inventory of two shipwrecks from the Belgian Continental Shelf , . *Hydrobiologia*, 555: 207-219
- F.Kerckhof , R.Rumes, A.Norro ,T.Jacques, S.Degraer (2009). Seasonal variation and vertical zonation of the marine biofouling on a concrete offshore windmill foundation on the Thornton Bank (southern North Sea) In Degraer, s., r. Brabant, b. Rumes ed., Offshore wind farms in the Belgian part of the North Sea. Early environmental impact assessment and spatio-temporal variability, 212 p.

SAYER:

- Brown, C.J. (2005). Epifaunal colonization of the Loch Linnhe artificial reef: influence of substratum on epifaunal assemblage structure. *Biofouling* **21**, 73-85.
- Beaumont, J.C., Brown, C.J. and Sayer, M.D.J. (2007). Evaluation of techniques used in the assessment of subtidal epifaunal assemblage structure. *Biofouling* **23**, 343-356.
- Sayer, M.D.J. and Poonian, C. (2007). The influences of census technique on estimating indices of macrofaunal population density in the temperate rocky subtidal zone *Underwater Technology* **27**, 119-139. A novel approach to measuring subtidal habitat complexity
- Wilding, T.A., Rose, C.A. and Downie, M.J. (2007). A novel approach to measuring subtidal habitat complexity. *Journal of Experimental Marine Biology and Ecology* **353**, 279-286.
- Hunter, W.R. and Sayer, M.D.J. (2009). The relationship between habitat complexity and animal abundance on artificial reefs deployed in north temperate waters. *ICES Journal of Marine Science* **66**, 691–698.
- van Rein H.; Schoeman D. S.; Brown C. J.; et al. (2012). Development of low-cost image mosaics of hard-bottom sessile communities using SCUBA: comparisons of optical media and of proxy measures of community structure. *Journal of the Marine Biological Association of the United Kingdom* **92**, 49-62

- van Rein H.; Schoeman D. S.; Brown C. J.; et al. (2011). Development of benthic monitoring methods using photoquadrats and scuba on heterogeneous hard-substrata: a boulder-slope community case study. *Aquatic Conservation-Marine and Freshwater Ecosystems* **21**, 676-689.
- van Rein H.; Schoeman D. S.; Brown C. J.; et al. (2011). Fixed-station monitoring of a harbour wall community: the utility of low-cost photomosaics and scuba on hard-substrata. *Aquatic Conservation-Marine and Freshwater Ecosystems* **21**, 690-703.

FERAL

- Arvanitidis C, Faulwetter S, Chatzigeorgiou G, Penev L, Banki O, Dailianis T, Pafilis E, Kouratoras M, Chatzinikolaou E, Fanini L, Vasileiadou A, Pavloudi C, Vavilis P, Koulouri P, Dounas C (2011) Engaging the broader community in biodiversity research: the concept of the COMBER pilot project for divers in ViBRANT. In: Smith V, Penev L (Eds) e-Infrastructures for data publishing in biodiversity science. *ZooKeys* 150: 211–229
- Aurelle D., Ledoux J.-B., Mokhtar-Jamaï K., Rocher C., Chenuil A., Féral J.-P. 2011 Phylogeography of the red coral *Corallium rubrum*: what marker and genetic consequences of Quaternary range fluctuations? *Genetica* 139 (7): 855-869
- Ballesteros E. 2006. Mediterranean coralligenous assemblages: a synthesis of present knowledge. *Oceanogr Mar Biol.* 44: 123-195
- Féral J.-P. 2002 - How useful are the genetic markers in attempts to understand and to manage marine biodiversity. *J. exp. Mar. Biol. Ecol.* 268:121-145
- Féral J.-P. 2009 - Are climate changes already threatening sessile species (or species with low mobility) in the North-Western Mediterranean Sea? Vulnerability of coastal ecosystems. In *Climate warming and related changes in Mediterranean marine biota*, CIESM workshop Monographs N° 35 [F. Briand Ed.], pp. 79-87 & plates D,E,F p.110 + references, CIESM: Monaco
- Garrabou J., Pérez T., Sartoretto S. and Harmelin J.-G., 2001. Mass mortality event in red coral (*Corallium rubrum*, Cnidaria, Anthozoa, Octocorallia) population in the Provence region (France, NW Mediterranean). *Mar. Ecol. Prog. Ser.* 217:263-272.
- Hong, J.S. 1983. Impact of the pollution on the benthic community. Environmental impact of the pollution on the benthic coralligenous community in the Gulf of Fos, northwestern Mediterranean. *Bulletin Korean Fisheries Society*, 16(3): 273-290.
- Laubier L. 1966. Le coralligène des Albères: monographie biocénotique. *Ann. Inst. Océanogr. Monaco*, 43: 139-316.
- Ledoux J.-B., Garrabou J., Bianchimani O., Drap P., Féral J.-P., Aurelle D. 2010 Fine-scale genetic structure and inferences on population biology in the threatened Mediterranean red coral, *Corallium rubrum*. *Mol. Ecol.* 19: 4204-4216
- Ledoux J.-B., Mokhtar-Jamaï K., Roby C., Féral J.-P., Garrabou J. & Aurelle D. 2010 - Genetic survey of shallow populations of the Mediterranean red coral (*Corallium rubrum* (Linnaeus, 1758)): new insights into evolutionary processes shaping current nuclear diversity and implications for conservation. *Mol. Ecol.* 19: 675-690
- Marschal C., Garrabou J., Harmelin J.G. 2004. A new method for measuring growth and age in precious red coral *Corallium rubrum* (L.). *Coral Reefs*, 23 : 423-432
- Mokhtar-Jamaï K., Pascual M., Ledoux J.-B., Coma R., Féral J.-P., Garrabou J., Aurelle D. 2011 Genetic structuring in the red gorgonian *Paramuricea clavata* across the Mediterranean Sea: the interplay between oceanographic conditions and limited larval dispersal. *Mol. Ecol.* 29 (16): 3291-3305
- Sartoretto S., Francour P., 2012. Data on Bathymetric Distribution and Growth Rates of *Eunicella verrucosa* (Cnidaria: Gorgoniidae) along Marseilles Coast (France). *Sci. Mar.*, in press
- Sartoretto S., Marschal C., Bianchimani O., Drap P., 2009. Une revue des méthodes d'étude des processus dynamiques au sein des bioconcrétionnements marins. *Premier Symposium sur le*

coralligène et autres bio- concrétionnements méditerranéens – CAR/ASP, Tabarka, 15-16 janvier 2009.

- Teixidó N, Albajes-Eizagirre A, Bolbo D, Le Hir E, Demestre M, Garrabou J, Guigues L, Gili JM, Piera J, Prelot T, Soria-Frisch A (2011) Hierarchical segmentation based software for cover classification analyses of sea- bed images (Seascape). *Marine Ecology Progress Series* 431:45-53.
- Trygonis V & Sini M. 2012. photoQuad: A dedicated seabed image processing software, and a comparative error analysis of four photoquadrat methods. *Journal of Experimental Marine Biology and Ecology* (in press)