

Agenda Item 6.2

Project Funding through ASCOBANS
Selection and Prioritization of Projects for
Future Support

Document 6-02

**Project Proposals Received for
Future Funding**

Action Requested

- Review proposals
- Group proposals in priority categories

Submitted by

Secretariat



NOTE:
IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING THEIR
OWN COPIES OF DOCUMENTS TO THE MEETING

Project Proposals Received for Future Funding

1. Following a call for project proposals issued to ASCOBANS Parties and partner organizations on 12 January 2011, the attached funding applications were received by the Secretariat.
2. The members of the Advisory Committee are requested to consider the proposals and decide on their suitability for funding through the Agreement, as well as the priorities to be assigned to suitable projects, such as:
 - very high priority
 - high priority
 - medium priority
 - not a priority / not suitable for funding
3. Such a categorization would enable the Secretariat to respond appropriately if a selected project does not materialize or the budgetary needs of a project need to be corrected by the time a funding agreement is concluded. It would also allow the Secretariat to fundraise specifically for those projects that the Committee has assigned high priority, but for which funds are lacking.
4. The AC retains the right to decide on the use of leftover funds, including assigning them to projects conceptualized during the meeting. Such ad-hoc proposals will be taken note of by the Secretariat throughout the meeting and a list will be compiled for the Parties' review. Parties will prioritize and decide on the funding of these projects before the end of the meeting.
5. If emerging issues are identified during the meeting for which no concrete proposals are available, Parties may wish to instruct the Secretariat to make a call for proposals on a specific subject. The proposals received could either be reviewed intersessionally by email or at the next Advisory Committee Meeting.

Proposals Received in Response to the 2010 Call

6. In total, seven proposals were received by the deadline set (15 February). The detailed proposals and CVs of researchers, if provided, are attached in the annexes to this document. The following table gives an overview:

Annex	Title	Applicant	Funding Requested
1	Innovative conservation genetic analyses of Baltic Sea harbour porpoise: analysing sub-fossil samples to understand past change; development of genetic monitoring methods	Dr Andrew Foote / University of Copenhagen	9,000 EUR
2	Photo identification of Harbour Porpoise, <i>Phocoena phocoena</i> , using a digiscope; a feasibility study	Hannah Keogh / Manx Whale and Dolphin Watch	2,000 GBP
3	Harbour porpoise alerting device (PAL): detailed field tests using theodolite-tracking	Prof. Dr. Boris Culik / F ³ . Forschung. Fakten. Fantasie.	14,971 EUR
4	Behavioural responses of bottlenose dolphins (<i>Tursiops truncatus</i>) to playbacks of pile driving sounds recorded during the construction phase of offshore wind farms	Sander van der Heul / Boudewijn Seapark Dr. ir. Ron A. Kastelein / Sea Mammal Research Company (SEAMARCO)	15,000 EUR
5	Distribution and relative abundance of harbour porpoises (<i>Phocoena phocoena</i>) over Dogger Bank and surrounding waters, Southern North Sea	Anna Moscrop / Marine Conservation Research	14,100 EUR
6	SAMBAH exhibition	Mats Amundin / Kolmårdens Djurpark	12,250 EUR
7	Harbour Porpoise Day - Raising awareness in the Netherlands	Marchien de Ruiter / North Sea Foundation	14,760 EUR

ASCOBANS Project Proposal - Foote 2011

<p>Title Innovative conservation genetic analyses of Baltic Sea harbour porpoise: analysing sub-fossil samples to understand past change; development of genetic monitoring methods.</p>	<p>Justification: Conservation and Management Plan Jastarnia Plan</p>	<p>Project ID: 2011/01</p>
<p>Implementing Agency / Applicant</p>	<p>Dr Andrew Foote, Centre for GeoGenetics, Natural History Museum of Denmark, University of Copenhagen, Øster Volgade 5-7, Copenhagen K, DK-1350, Denmark</p>	
<p>Collaborating Agencies / Other Sponsors</p>	<p>Magnus Wahlberg, Fjord-Bælt Centre, Kerteminde, Denmark</p>	
<p>Background / Problem</p>	<p>This project will be a new activity that will link to past and ongoing initiatives. The project addresses two issues: firstly, genetic studies indicate harbour porpoise in the Baltic Sea are a discrete subpopulation, which is currently listed as Critically Endangered on the IUCN Red List. This is based on an estimated population size of fewer than 250 mature animals, which are thought to be in continued decline, but for reasons that are poorly understood. Secondly, ongoing surveys to monitor harbour porpoise abundance and range are challenged by its small size and undemonstrative behaviour at the surface making it hard to detect except in good conditions. Additionally, these features make it a poor candidate for collecting biopsy samples from free-ranging individuals, meaning that genetic analyses are dependent upon specimens from strandings and bycatch and prone to the biases that entails.</p>	
<p>Objectives</p>	<p>Using ancient DNA analysis of the same dataset of sub-fossil samples we will track the entire genetic history of the harbour porpoise in the Baltic Sea to infer demographic change using genetic diversity as a proxy to identify the timing of population fragmentation and declines in genetic diversity and effective population size.</p> <p>Second, we aim to test a method for genetic monitoring from seawater samples, which could be used in conjunction with other survey methods, but in addition to identifying presence or absence could also infer population of origin.</p>	
<p>Relevance to ASCOBANS</p>	<p>The proposed project would significantly contribute towards several of the Activities highlighted in the Agreement's Triennium Work Plan, including being highly informative to the implementation and monitoring of the Recovery Plan for Baltic Harbour Porpoises (Jastarnia Plan), a proposed strategic priority in the Strategy plan. The ancient DNA analysis would help establish a much longer-term baseline dataset of effective population size estimates. The genetic monitoring protocol will provide a low-cost, effective sampling method, which will greatly enhance the data from surveys and be highly informative of the success of the recovery plan.</p>	

ASCOBANS Project Proposal - Foote 2011

<p>Activities</p>	<p>Firstly we will sub-sample approximately 100 sub-fossil harbour porpoise so as to obtain a representative samples set from the past 8,000 years and from throughout the Baltic.</p> <p>We will extract, amplify and sequence the fragment of mitochondrial DNA used in the Wiemann et al. (2010) study to facilitate comparison with contemporary samples.</p> <p>Several coalescent methods will then be applied to track demographic change and population fragmentation over time.</p> <p>Recent studies have demonstrated that it is possible to collect material for DNA analysis by filtering seawater samples (Venter et al. 2004 Science). In our lab we have been conducting similar experiments on pond species and finding that we can detect the DNA of a single tadpole in a 1m² pond, but all traces of DNA disappear within a few days of the death of the tadpole. We propose to conduct initial tests on seawater samples from the Fjord-Bælt Centre, which houses 4 harbour porpoise in a netted off 4 million litre sea pen. We will use high-throughput targeted sequencing techniques to amplify and sequence the same fragment of porpoise mitochondrial DNA as used in the Weimann et al. study and will compare the haplotypes identified with those identified from the individuals using conventional tissue analysis. If the initial trials are successful we hope to collaborate with those working in different regions of the Baltic and the North Sea to augment their transects using acoustic and visual survey methods with towed tangential and impact filters. We will then analyse the filtrate to genetically test for the presence of living harbour porpoise and where present identify the mtDNA haplotype.</p> <p>Personnel costs are covered by a Marie Curie fellowship and a Danish National Research Foundation grant and laboratory costs in this application are limited to the laboratory consumables needed, sequencing costs and travel costs to museums for sampling.</p> <p>The sampling of sub-fossils and collection of seawater samples from the Fjord-Bælt Centre would be done in the first month of the project. The laboratory work for these samples would take 6 months, followed by 1-2 months of data analysis and writing up.</p>
<p>Outputs</p>	<p>It is anticipated that the work on sub-fossil sample will lead to a publication in a peer-reviewed scientific journal with a conservation emphasis, e.g. Conservation Genetics and would be a flagship study as one of the first ancient DNA conservation genetics studies on a marine mammal population. A thorough report on the implications for the recovery plan of Baltic Sea harbour porpoise would be prepared for ASCOBANS. We will also feed back the information that we obtain from the sub-fossil samples back to the museums and help with interpretation for public outreach so that there is an educational output, which raises awareness of the plight of the Baltic Sea harbour porpoise.</p> <p>The analysis of seawater would also be expected to result in a peer-reviewed publication and ASCOBANS report. We hope then to help implement this method into ongoing surveys and to collaborate with ASCOBANS on this approach in to the future. We also anticipate this method being something of a flagship approach and being more widely adopted on marine surveys elsewhere, for example recent surveys of the Yangtze river for the baiji could have benefited from such a method.</p>

ASCOBANS Project Proposal - Foote 2011

<p>Work Plan and Timetable</p>	<table border="0"> <thead> <tr> <th data-bbox="430 241 702 275">Date</th> <th data-bbox="702 241 1410 275">Activity</th> </tr> </thead> <tbody> <tr> <td data-bbox="430 275 702 320">April 2011</td> <td data-bbox="702 275 1410 320">Sample collection</td> </tr> <tr> <td data-bbox="430 320 702 398">May - October 2011</td> <td data-bbox="702 320 1410 398">DNA extraction, amplification and sequencing</td> </tr> <tr> <td data-bbox="430 398 702 477">November – December 2011</td> <td data-bbox="702 398 1410 477">Data analysis</td> </tr> <tr> <td data-bbox="430 477 702 555">January - March 2012</td> <td data-bbox="702 477 1410 555">Write up and submission of final report and manuscripts for publication</td> </tr> </tbody> </table> <p data-bbox="702 555 1410 622">Dr Andrew Foote will be responsible for the implementation of all stages of the project.</p>	Date	Activity	April 2011	Sample collection	May - October 2011	DNA extraction, amplification and sequencing	November – December 2011	Data analysis	January - March 2012	Write up and submission of final report and manuscripts for publication
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<p>Project Personnel</p>	<p data-bbox="430 678 1410 947">Dr Andrew Foote Postdoctoral Fellow Centre for GeoGenetics, Natural History Museum of Denmark, University of Copenhagen, Øster Volgade 5-7, Copenhagen K, DK-1350, Denmark FooteAD@gmail.com +4552323841 See below for CV.</p>										
<p>Budget Estimates</p>	<p data-bbox="430 1005 1410 1106">Sequencing of 100 sub-fossil samples using primer extension capture and high-throughput sequencing using the Illumina platform = 70 euros per sample Sub-total=7,000 euros.</p> <p data-bbox="430 1151 1410 1218">Sequencing of 10 seawater samples, using the 454 FLX platform for deep coverage sequencing = 100 euros per sample. Sub-total = 1,000 euros</p> <p data-bbox="430 1263 1410 1308">Travel costs for sample collection = 1,000 euros Total = 9,000 euros</p> <p data-bbox="430 1352 1410 1453">This budget is greatly reduced by infrastructure and personnel costs already having been covered by a grant from Danish National Research Foundation and a Marie Curie FP7 Intra-European fellowship.</p> <p data-bbox="430 1498 1410 1666">The budget should include not only the funds requested of ASCOBANS, but also possible other financial resources made available by other sponsors or collaborating agencies. The budget should be presented in a tabular format and, where applicable, should clearly indicate the expected source of the various amounts budgeted.</p>										

CV

Dr Andrew Foote

Postdoctoral Fellow

Centre for GeoGenetics, Natural History Museum of Denmark, University of Copenhagen, Øster Volgade 5-7, Copenhagen K, DK-1350, Denmark

FooteAD@gmail.com

+4552323841

Education

2006-2010 The Evolutionary Ecology of North Atlantic killer whales. PhD thesis, University of Aberdeen, UK.

2002-2005 Correlates of Variability in Killer Whale Stereotyped Call Repertoires. MSc thesis, University of Durham, UK.

Post-doctoral Employment

September-December 2010 Postdoctoral Researcher, Centre for GeoGenetics, University of Copenhagen (European Science Foundation (ESF) Frontiers of Speciation (FroSpects) exchange grant).

January 2011 – April 2013 Postdoctoral Fellow, Centre for GeoGenetics, University of Copenhagen (Marie Curie FP7 Intra-European Fellowship).

Peer-reviewed publications

Vilstrup JT, Ho SYW, **Foote AD**, et al. (in review) Mitogenomic phylogenetic analyses of the Delphinidae with an emphasis on the Globicephalinae. *BMC Biology*

Foote AD, Hofreiter M, Morin PA (2011) Ancient DNA and marine mammals: Studying long-lived species over ecological and evolutionary timescales. *Annals of Anatomy* in press (Invited Review)

Foote AD, Morin PA, Durban JW, Pitman RL, Wade P, Willerslev E, Gilbert MTP, da Fonseca RR (2011) Positive selection on the killer whale mitogenome. *Biology Letters*, 7:116-118.

Foote AD, Vilstrup JT, de Stephanis R, et al. (2011) Genetic differentiation among North Atlantic killer whale populations. *Molecular Ecology* 20:629-641.

Rehn N, Filatova OA, Durban JW, **Foote AD** (2011) Cross-cultural and cross-ecotype production of a killer whale 'excitement' call suggests universality. *Naturwissenschaften* 98:1-6.

Morin PA, Archer FI, **Foote AD**, et al. (2010) Complete mitochondrial genome phylogeographic analysis of killer whales (*Orcinus orca*) indicates multiple species. *Genome Research* 20:908-916.

Foote AD, Similä T, Vikingsson GA, Stevick PT (2010) Movement, site fidelity and connectivity in a top marine predator, the killer whale. *Evolutionary Ecology* 24:803-814.

Foote AD, Newton J, Piertney SB, Willerslev E, Gilbert MTP (2009) Ecological, morphological and genetic divergence of sympatric North Atlantic killer whale populations. *Molecular Ecology* 18:5207-5217.

Bolt HE, Harvey PV, Mandleberg L, **Foote AD** (2009) Occurrence of killer whales in Scottish inshore waters: temporal and spatial patterns relative to the distribution of declining harbour seal populations. *Aquatic Conservation* 19:671-675

Foote AD (2008) Mortality rate acceleration and post-reproductive lifespan in matrilineal whale species. *Biology Letters* 4:189-191

Foote AD, Osborne RW, Hoelzel AR (2008) Temporal and contextual patterns of killer whale (*Orcinus orca*) call type production. *Ethology* 114:599-606

Foote AD, Nystuen JA (2008) Variation in call pitch among killer whale ecotypes. *Journal of the Acoustical Society of America* 123:1747-1752

Foote AD, Griffin RM, Howitt D, Larsson L, Miller PJO, Hoelzel AR (2006) Killer whales are capable of vocal learning. *Biology Letters* 2:509-512

Foote AD, Osborne RW, Hoelzel AR (2004) Whale-call response to masking boat noise. *Nature* 428:910

Invited presentations

Scientific Committee of the International Whaling Commission, Anchorage, USA (2007).
Southern Resident Killer Whale Symposium, NOAA, Seattle, USA (2006)

Reports

SCOS 2010
Marine Scotland 2010
Marine Scotland 2009
SCOS 2007
IWC 2007

Teaching Experience

Ecology tutor and ecology and zoology practical class demonstrator at Durham University and supervised a student (James Whiteford) for his dissertation thesis for which he received a first class mark. At Aberdeen I supervised a MSc student project (Harriet Bolt) which resulted in a first class mark, three government reports, student prize winning international conference poster and a peer-reviewed publication. I co-supervised an MSc student (Julia Vilstrup) and two Bachelors students at the University of Copenhagen, all of which were awarded a maximum score of 12, Julia's project resulted in the submission of a first author peer-reviewed publication for her and she contributed to two other papers for which she is a co-author. Most recently I co-supervised a MSc student from the University of Bangor, UK, which has also resulted in the submission of a peer reviewed paper.

Grants and Awards

£500 Whale and Dolphin Conservation Society 2002 & 2003
£1,000 PADI Project AWARE 2003
\$500 American Cetacean Society Puget Sound Chapter award 2003
\$10,000 Northwest Fisheries Science Center, NOAA 2005,
£22,500 6th Century Scholarship Aberdeen University 2006-2009
£40,000 Carnegie Trust 2008
£2,000 Scottish Natural Heritage 2008
£10,000 Marine Directorate, Scottish Government 2008
£9,000 EU Genetime Grant 2009
£10,000 Marine Directorate, Scottish Government 2009
NERC grant, following the award of A4 status, to carry stable isotope analysis at SUERC facility 2009

£1,000 Systematics Research Fund, Linnean Society 2009
£10,000 Marine Directorate, Scottish Government 2010
Euro 2,000 European Science Foundation (ESF) Frontiers of Speciation (FroSpects) exchange grant 2010
EU Marie Curie FP7 Intra-European fellowship 2011-2013

Reviewer for Animal Behaviour, Animal Cognition, Behavioral Genetics, Biodiversity and Conservation, Biological Conservation, Biological Journal of the Linnean Society, Ethology, Journal of Heredity, Journal of Zoology, Mammalian Biology, Marine Biology, Marine Mammal Science, Molecular Ecology, Proceedings of the Royal Society Series B.

Society Membership

Association for the Study of Animal Behaviour (ASAB) student member since 2002
European Cetacean Society (ECS) student member since 2002
Society for Marine Mammalogy (SMM) student member since 2005
SMM UK student chapter member since 2003, committee member 2007-2008, hosted and organized the 2008 annual meeting

Media coverage includes reports in *Nature* (Research Highlights), *Science* (Random Samples), New Scientist, Scientific American, New York Times, The Independent, Daily Telegraph, The Times, Planet Earth (NERC magazine), BBC1 for whom I have acted as a Scientific consultant, BBC Radio 4, BBC World Service and CBC radio.

**FORMAT FOR PROJECT PROPOSALS
FOR THE CONSIDERATION OF THE ASCOBANS ADVISORY COMMITTEE**

<p>Title</p> <p>Photo identification of Harbour Porpoise, <i>Phocoena phocoena</i>, using a digiscope; a feasibility study.</p>	<p>Justification:</p> <p>Conservation and Management Plan</p>	<p>Project ID:</p> <p>2011/02</p>
<p>Implementing Agency / Applicant</p>	<p>Individual: Hannah Keogh Address: Leabeg Lane, Newcastle, Co. Wicklow, Ireland</p>	
<p>Collaborating Agencies / Other Sponsors</p>	<p>Individual: Thomas Felce- Manx Whale & Dolphin Watch Address: 1 Tynwald Road, Peel, Isle of Man, IM5 1JZ.</p>	
<p>Background / Problem</p>	<p>Harbour Porpoise tend to be very shy of boats, making any study of individuals very difficult. Therefore very little is known about residency of individuals to specific areas or about whether certain individuals show preference to certain other individuals. Photo identification is a widely used technique in marine mammal science, but has been used very rarely and with limited success on Porpoise species. This will be the first study to attempt photo identification of Harbour Porpoise from land using a digiscope. Since this will involve no disturbance of individuals, it is hoped that more images will be taken than has been possible in previous, boat based, photo identification studies on Harbour Porpoise.</p>	
<p>Objectives</p>	<p>The objective of this project is to test the efficacy of land based digiscoping as a tool for photo identification of Harbour Porpoise. This will be achieved by fulfilling certain other objectives. Firstly, to assess whether it is possible to take images, of good enough quality, to be able to identify individuals. Secondly, to assess whether dorsal fins of Harbour Porpoise have enough distinguishing features to be able to identify individuals.</p> <p>Finally, to assess whether enough individuals have distinguishable features to make photo-identification a useful tool in understanding life history traits of Harbour Porpoise. If all of the aforementioned assessments prove positive, it will then be possible to determine whether individuals show any form of residency to a particular area and to gain an insight into the social dynamics of Harbour Porpoise.</p>	

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<p>Relevance to ASCOBANS</p>	<p>This project is most relevant to the Surveys and Research part of the Triennium Plan and related Conservation and Management Plan. The latter plan encourages investigations to assess the status and seasonal movements of population and stocks (a) and to locate areas of special importance to small cetacean species (b). It goes on to state that “Studies should particularly include improvement of existing and development of new methods to estimate abundance, trends, population structure and dynamics and migrations. Studies under (b) should focus on locating areas of special importance for breeding and feeding.</p> <p>This project represents a new methodology which will help to understand the population structure and dynamics of Harbour Porpoise in Manx waters. It may also highlight how important the study sites are for breeding Harbour Porpoise and will highlight how many individual adults, with calves, use the two study sites. At present, there is no methodology available from which such specific information about Harbour Porpoise individuals can be assessed.</p> <p>Furthermore, at present, it is assumed that the abundance estimate of around 850, derived from distance sampling, for Harbour Porpoise in Manx waters, represents essentially one population, as is the case for example in Cardigan Bay Wales. If this study shows Harbour Porpoise to be highly resident, it is more likely that porpoise in Manx waters and potentially elsewhere, are in fact a series of sub-populations, that rarely intermingle. This needs to be accounted for by decision makers and conservationists.</p>
<p>Activities</p>	<p>Initially, the only task to be carried out is the taking of images of Harbour Porpoise using a Canon EOS 30D SLR camera attached to a telescope and a tripod system. All digiscoping will be carried out by Hannah Keogh.</p> <p>Two study sites will be used: Port St Mary (Latitude 54° 4.07, Longitude -4° 41.21) and to the east of the Calf of Manx sound (Latitude 54° 3.77, Longitude -4° 47.58). These locations have been chosen because effort based watches from land have shown them to be frequented by Harbour Porpoise. Furthermore, groups are often encountered close enough inshore to allow digiscoping to be feasible.</p> <p>Digiscoping will be carried out only on days of Beaufort scale force three or less as above this wind speed, individuals will be difficult to spot and therefore difficult to obtain images of. Two personnel will be present during all digiscoping sessions; Hannah Keogh will always be the photographer and will be accompanied by at least one other observer. These observers will be volunteers for Manx Whale and Dolphin Watch and Manx Wildlife Trust and will be trained before the start of the project.</p> <p>Before cataloguing, images will be assessed in terms of quality, using a standardised protocol. Only images of high enough quality will be used in the project. Individuals will be catalogued based on the level of markings on the dorsal fin. The catalogue will be split into three sub-catalogues: well marked</p>

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	<p>individuals (those recognisable from images of either side of the dorsal fin), individuals recognisable from the left hand side of the dorsal fin only and individuals recognisable from the right hand side of the dorsal fin only. Calves will also be catalogued either by markings on the dorsal fin or flanks or by association with an adult individual who has been recognised. At least one image each time an individual is photographed will be catalogued. If an individual is well marked, an image of both the left hand side and right hand side will be catalogued, if available. Cataloguing will be carried out by Hannah Keogh and Tom Felce.</p>
<p>Outputs</p>	<p>A report on the success of the project, accompanied by the catalogue of individuals, will be provided to ASCOBANS and to the Isle of Man governmental Department of Environment, Forestry and Agriculture (DEFA). The project will also be presented as a poster at the meeting of the European Cetacean Society in 2012. It is also hoped that the project will be accepted in peer reviewed journals, as a novel technique for studying Harbour Porpoise, for example in the journal "Methods in Ecology and Evolution".</p> <p>On a more local scale, the information will be disseminated to the Manx public through public talks and through the websites of Manx Whale and Dolphin Watch and the Manx Wildlife Trust. The catalogue itself will also be available on both of these websites.</p> <p>The Manx government is currently in the process of creating the first of a network of Marine Nature Reserves. If it can be proven that either Port St Mary or east of the Calf of Man sound are important areas for individual Harbour Porpoise, particularly adults associated with calves, this can be used as part of the consultation process in the selection of future marine nature reserves.</p> <p>The project will also be used to create more public interest in the plight of Harbour Porpoise in Manx waters. Being able to recognise individuals and highlight individuals that are resident to an area will give people a sense of ownership of porpoise in their area, which in turn will increase public perception of Harbour Porpoise in Manx waters.</p> <p>The degree of residency of individuals to specific areas will affect the way that Harbour Porpoise should be managed in Manx waters. If individuals show very little residency for example, management needs to take place over large geographical areas, whereas if individuals show a very high degree of residency, management needs to occur only in small geographical areas.</p>

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<p>Work Plan and Timetable</p>	<p>Start date – 30th April 2011 End date – 30th April 2012</p> <table border="1" data-bbox="555 344 1402 837"> <thead> <tr> <th>Activity</th> <th>Start date</th> <th>End date</th> <th>Implentee</th> </tr> </thead> <tbody> <tr> <td>Photography</td> <td>30/04/11</td> <td>31/12/12</td> <td>Hannah Keogh</td> </tr> <tr> <td>Assessment of image quality</td> <td>30/04/11</td> <td>31/12/12</td> <td>Hannah Keogh and Tom Felce</td> </tr> <tr> <td>Cataloguing</td> <td>30/04/11</td> <td>01/03/12</td> <td>Hannah Keogh and Tom Felce</td> </tr> <tr> <td>Report production</td> <td>01/01/12</td> <td>30/04/12</td> <td>Tom Felce and Hannah Keogh</td> </tr> </tbody> </table>	Activity	Start date	End date	Implentee	Photography	30/04/11	31/12/12	Hannah Keogh	Assessment of image quality	30/04/11	31/12/12	Hannah Keogh and Tom Felce	Cataloguing	30/04/11	01/03/12	Hannah Keogh and Tom Felce	Report production	01/01/12	30/04/12	Tom Felce and Hannah Keogh
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Report production	01/01/12	30/04/12	Tom Felce and Hannah Keogh																		
<p>Project Personnel</p>	<p>Hannah Keogh – Photographer Tel: +353872819201 Affiliation – Volunteer with Manx Whale and Dolphin Watch.</p> <p>Hannah Keogh volunteered for the Manx Wildlife Trust and Manx Whale and Dolphin Watch for 4 months during the summer of 2010. During this time, she was involved in many aspects of the marine wildlife work carried out, including land based watches for cetaceans and basking sharks, boat surveys, data entry, checking and analysis, photo identification of cetaceans and basking sharks, assisting at public events and with marine education and interpretation.</p> <p>Hannah is a highly skilled wildlife photographer, even succeeding in taking the first photograph of a humpback whale in Manx waters for several years. She also took many images of Risso’s Dolphins which have been used in the Manx Risso’s Dolphin catalogue, both from land and boat. Hannah also has a FETAC level 5 photography qualification received in Eire.</p> <p>Tom Felce – Supervisor Tel: +447624330185 Affiliation – Director of Manx Whale and Dolphin Watch</p> <p>Tom Felce has been director of Manx Whale and Dolphin Watch since 2009 and has been the lead researcher of the organisation since 2007. Projects that have been completed since then include the creation of an Irish Sea Risso’s Dolphin catalogue with WDCS and SWF, derivation of the first ever abundance estimate for Harbour Porpoise in Manx waters and line transect surveys for cetaceans in Manx waters. Photo-identification catalogues have been set up for Risso’s Dolphins, Common Dolphins, Bottlenose Dolphins and Minke Whales in Manx waters, images being shared with other marine mammal</p>																				

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	<p>research organisations around the Irish Sea.</p> <p>Tom has presented posters at the European Cetacean Society every year since 2005, when working for SWF and has written yearly reports for the Manx government based on the work carried out by Manx Whale and Dolphin Watch. Before working for Manx Whale and Dolphin Watch, Tom spent three years working for SWF in Cardigan Bay, Wales, including running research in 2005.</p>										
Budget Estimates	<table border="1" data-bbox="655 600 1299 875"><thead><tr><th>Task</th><th>Cost</th></tr></thead><tbody><tr><td>Photography</td><td>£1000 (time)</td></tr><tr><td>Travel to sites</td><td>£200 (£2 per trip)</td></tr><tr><td>Cataloguing</td><td>£400 (time)</td></tr><tr><td>Report production</td><td>£400 (time)</td></tr></tbody></table> <p>All equipment needed for the study (camera, digiscope, hard drives etc.) is already owned by Manx Whale and Dolphin Watch.</p>	Task	Cost	Photography	£1000 (time)	Travel to sites	£200 (£2 per trip)	Cataloguing	£400 (time)	Report production	£400 (time)
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Title Harbour porpoise alerting device (PAL): detailed field tests using theodolite-tracking	Justification: (to be completed by the Secretariat)	Project ID: (to be completed by the Secretariat)
Implementing Agency / Applicant	Prof. Dr. Boris Culik F ³ : Forschung . Fakten . Fantasie Am Reff 1 D- 24226 Heikendorf Fon: +49(0) 431 2378 588 Mobil +49 (0) 172 750 41 92 Fax: +49(0) 431 2378 589 Email: bculik@fh3.de Web: www.fh3.de	
Collaborating Agencies	L3 ELAC Nautik, Kiel MC-Elektronik, Schwedeneck IFM-GEOMAR, Kiel WTD71, German Navy, Kiel	
German Summary	<p>„PAL“ (Porpoise Alarm), ein neuartiges akustisches Warngerät, nutzt die Kommunikationslaute von Schweinswalen um die Tiere vor tödlichen Netzen zu warnen. Erste Versuche an Tieren im Labor und im Freiland zeigen, dass die Tiere das Signal richtig verstehen und darauf mit intensiver akustischer Untersuchung reagieren. Nun soll mittels Theodolit eine eingehendere Aufzeichnung des Schweinswalverhaltens im Freiland erfolgen, um die Reaktion auf PAL quantifizieren zu können.</p> <p>Die wichtigste Todesursache für Schweinswale in freier Wildbahn ist die Kollision mit Netzen. Vor allem in Kiemennetzen verheddern sich die Tiere leicht und ertrinken (Culik, 2010). Die Tiere können die Netze aus feinem Nylongarn weder mit Hilfe ihrer Augen noch akustisch mit Hilfe ihrer Klicklaute rechtzeitig erkennen.</p> <p>Um diesen sogenannten Beifang zu vermeiden, werden derzeit vor allem Pinger eingesetzt. Dabei handelt es sich um Geräte, welche für Schweinswale unangenehme Geräusche aussenden. Als Reaktion halten die Tiere zu Pinger-bestückten Netzen einen Abstand von bis zu mehreren 100 Metern ein (Culik et al. 2001).</p> <p>Solche akustischen Vergrämungsgeräte halten Schweinswale jedoch auch von ihren natürlichen Nahrungsressourcen fern. Außerdem, das haben verschiedene Untersuchungen gezeigt (z.B.</p>	



Koschinski et al. 2006), übersteigt der von den Tieren eingehaltene Abstand bei weitem die Maximaldistanz von 2-4 m, aus der Schweinswale mit Hilfe Ihrer Echoortung ein Netz noch als Hindernis bzw. Bedrohung wahrnehmen könnten. Folglich lernen Schweinswale nicht, den Bezug zwischen Pinger und Bedrohung herzustellen.

Und schließlich werden die Tiere durch die lauten Pinger auch noch in benachbarte Netze gescheucht, die von Kuttern kleiner als 12 m ausgebracht wurden und daher nicht, laut EU-Bestimmung (European Union Council Regulation No 812/2004), mit Pingern ausgerüstet sein müssen. Pinger können somit nicht als das Ende der Entwicklung akustischer Beifangvermeidungsmethoden angesehen werden.

Mit Hilfe des neuartigen PAL-Warngeräts werden hingegen Warngeräusche erzeugt, welche von Schweinswalen auch als solche verstanden werden. Hinweise dazu lieferte ein Paper von Clausen et al. (2010): so kommunizieren Schweinswale vornehmlich mit Klicks. Bestimmte Klick-Abfolgen, sogenannte Klicktrains werden dabei als Warnung verstanden.

Ein vom Antragssteller gemeinsam mit L3- ELAC Nautik in Kiel entwickelter, programmierbarer Klickgenerator wurde entsprechend dieser neuen Erkenntnisse (Dank der Unterstützung der „Freunde der CMS e.V.“) so konfiguriert, dass er entsprechende Warn-Klicktrains generiert. Diese bestehen aus einem Signal von 1,4 s Dauer, welches sich aus insgesamt 750 Klicks bei einer Frequenz von 132 kHz zusammensetzt. Dabei wird die Wiederholungsrate der Klicks im Laufe des Signals von 400 Klicks/s kontinuierlich auf 1100 Klicks/s gesteigert.

Die Reaktion von Schweinswalen auf dieses Signal wurde im Herbst 2010 in Versuchen im Fjord&Baelte Center im dänischen Kerteminde getestet. Die Reaktionen von vier Versuchstieren wurden in jeweils 20 Versuchen akustisch und visuell aufgezeichnet und ausgewertet. Während der einminütigen Sendezeit des künstlichen Signals untersuchten die Tiere die Schallquelle intensiv sowohl akustisch als auch visuell, mit signifikanter Steigerung gegenüber der Kontrolle (jeweils $n=11$, $p<0,05$, Wilcoxon Test). Für jedes Tier konnte zudem eine signifikant gesteigerte Biosonar-Aktivität im Vergleich mit der Minute vor und nach dem Signal festgestellt werden. Die Tiere steigerten die Anzahl der abgegebenen Klicks im Mittel um 40%.

Diese positiven Ergebnisse wurden an freilebenden Schweinswalen im Kleinen Belt vor der dänischen Stadt Fredericia überprüft. Mit Hilfe eines Kajaks wurden 33 Versuche durchgeführt. Sobald eine Gruppe in die Nähe des Bootes kam, wurde die Signalfrequenz gestartet und gleichzeitig unter Wasser die akustische



	<p>Reaktion der Tiere mit Hilfe eines Klickdetektors aufgezeichnet. Das Ergebnis bestätigt die Resultate aus dem Aquarium: sowohl die Anzahl als auch die Lautstärke der empfangenen Klicks stiegen bei Einsatz des Warngerätes signifikant an (von 105 auf 147 Klicks/Min; $p < 0,05$, Wilcoxon Test).</p> <p>Das bedeutet, dass die Schweinswale von dem Geräusch nicht vertrieben werden, wie bei Pingern, sondern die Geräuschquelle gezielt mit Hilfe ihres Biosonars akustisch untersuchen. Ein in der Nähe befindliches, gefährliches Netz wäre dabei vermutlich auch rechtzeitig erkannt worden.</p> <p>In detaillierteren Versuche vor Fredericia und Fyns Hoved, Dänemark, soll jetzt von Land aus mittels Theodolit das Verhalten der Tiere im Bereich der Schallquelle vermessen werden. Dabei geben die gemessenen Auftauchpunkte der Tiere Aufschluss über Richtung, Geschwindigkeit, Annäherung und Aufenthaltsdauer. Und die freilebenden Schweinswale werden nicht durch die Anwesenheit eines Bootes gestört.</p>
English Summary	<p>A newly developed, acoustic warning device "PAL" (porpoise alarm) uses communication sounds of harbour porpoises to warn the animals of deadly nets. First trials on animals in an aquarium and in the wild (funded by "Friends of CMS") showed last fall, that harbour porpoises correctly interpret the signal and react by intensifying their investigative behaviour. I want to follow up on these promising results by conducting a more thorough theodolite-tracking study to quantify the behaviour of wild harbour porpoises in the vicinity of PAL.</p> <p>One of the main tools to reduce by-catch in fisheries, to date, are pingers. Pingers are acoustic devices which produce sounds resulting in disturbance or harassment of harbour porpoises. The reaction of the animals is to maintain a large safety distance of several 100 metres to pinger-equipped nets (Culik et al. 2001).</p> <p>As shown by past investigations, this large distance exceeds the maximal distance of 2-4 metres within which harbour porpoises may detect a net as a barrier or threat by using their own echolocation or biosonar (Koschinski et al. 2006). As a consequence, harbour porpoises cannot establish a connection between currently used pinger models and the threatening nets.</p> <p>Furthermore, pingers have the potential to scare harbour porpoises into neighbouring nets which are not pinger-equipped, because e.g. these were laid out by vessels smaller than 12 metres in length and therefore - according to current EU regulations - not obliged to use pingers (European Union Council Regulation No 812/2004).</p>



	<p>This entails that pingers cannot be considered as an end-point in the development of acoustic alerting devices.</p> <p>A newly designed Porpoise Alerting Device (PAL) generates click trains matching alarm calls recorded during porpoise communication. The generated 1.4 s up-sweep-chirp consists of 750 clicks (132 kHz), starting with 400 clicks/s and ending with 1100 c/s (Clausen et al. 2010), followed by a 5.3 s pause.</p> <p>Video and acoustic observation conducted last fall on 4 harbour porpoises housed at the Fjord and Baelte Centre, Kerteminde, Danmark showed a significant positive response as well as increased biosonar activity during one minute of PAL operation (each n=11, p<0,05, Wilcoxon Test) as opposed to one minute immediately before and after (controls).</p> <p>This was confirmed by acoustic observation via C-POD (Chelonia, Cornwall) on free-living harbour porpoises off Fredericia. Bio-acoustic activity during one minute of PAL operation was significantly increased reaching 147 clicks/minute (median) as opposed to one minute immediately before (105 c/minute) and after (70 c/minute; n=33 trials, group size 1-6, p<0,05, Wilcoxon Test).</p> <p>However, albeit conducted in the field, this later test lacked a thorough method for quantifying the activity of harbour porpoises, i.e. their speed, direction, distance, and duration of activity in the vicinity of the PAL transducer. I therefore apply here for funding to conduct a more thorough theodolite-based field trial.</p>
<p>Relevance to ASCO-BANS</p>	<p>As stated in the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (New York, 1992), Chapter 2:</p> <p>2.1 The Parties undertake to cooperate closely in order to achieve and maintain a favourable conservation status for small cetaceans.</p> <p>2.2. In particular, each Party shall apply within the limits of its jurisdiction and in accordance with its international obligations, the conservation, research and management measures prescribed in the Annex.</p> <p>The Annex states explicitly in Chapter 2: “Studies under (c) should include research on habitat requirements, feeding ecology, trophic relationships, dispersal, and sensory biology with special regard to effects of pollution, disturbance and interactions with fisheries, including work on methods to reduce such interactions.”</p>



Activities	<p><u>Test on naïve animals in the wild.</u></p> <p>Field tests are to be conducted in an area of high Harbour Porpoise density, i.e. in the waters of the Lille Baelte, DK and/or off Fyns Hoved, on Fyn Island, DK. Animal activity will be monitored visually using a theodolite from an elevated position as well as acoustically using an autonomous click detector moored at the same position as the alerting device, approx. 50 - 100 m off the elevated coast. The alerting device will be remotely switched on and off by the theodolite-operator and sound / no sound periods will be immediately compared. A total of 4 field tests series is envisaged, each lasting approx. 3-5 days, depending on weather conditions and porpoise availability.</p> <p><u>Development of self-contained prototype.</u></p> <p>The lab-version of the alerting device consists of a sound transducer, cable and electronics box and cannot be used in a field tests as it is. Preparations for the field test require waterproofing and housing of the electronics and adding a remote control, so that the device can be switched on and off from the theodolite position. Furthermore, we will include a visual control (e.g. LED) to control that the device is truly operating.</p>
Outputs	<p>This project covers one of the steps required to develop a true porpoise <u>alerting</u> device. PAL is to become an alternative to pingers, acoustic harassment devices currently in use for harbour porpoise by-catch reduction. As mentioned above, pingers have a variety of drawbacks, such as habitat exclusion, noise generation and reduction in efficiency over time.</p> <p>Alerting at the site of the risk, at frequencies which do not call other species such as seals (because they can't hear above 100 kHz) and which are inaudible to fish, with low energy requirements and at low costs to the customer (i.e. the fishermen) is, in my view, a promising technical solution. The research I propose aims at obtaining detailed field data on harbour porpoise reactions to a previously positively tested PAL device.</p> <p>Outputs of the activities will be in form of:</p> <ul style="list-style-type: none">- A novel self-contained acoustic alerting prototype- A progress report- A scientific publication- public outreach and popular science reports in the local media



	<p>The applicant of this proposal is familiar with the various bycatch reducing devices currently available (updated in a dedicated workshop during the European Cetacean Society Conference on March 20, 2010 in Stralsund, Germany). To the best of my knowledge there is no other company or organisation developing a similar alerting device, the novelty of which was confirmed by Dr. Bernd Würsig, Texas A&M University.</p> <p>Note: The investigations proposed here are the basis for further research: In order to test whether wild porpoises learn to associate the sound emitted by the new alerting device with threatening gillnets employed in commercial fisheries, a subsequent field study will be required. A positive outcome would suggest that the alerting device is sufficient to focus the porpoises attention towards avoiding lethal nets in time. A negative outcome would require a subsequent test in conjunction with reflective nets, which have been shown to increase harbour porpoise detection range and reaction time (Koschinski et al. 2006).</p>
<p>Work Plan and Timetable</p>	<p>Part A: Optimisation of the lab-version of the alerting device to enable autonomous deployment in the field will commence immediately upon positive evaluation of this proposal. This entails a buoyant and waterproof housing, radio-control, mooring and e.g. LED for detection of correct operation. Rental of theodolite equipment and acoustic detection devices. Field trials and preliminary data analysis will be conducted in Kiel Fjord to ensure correct and reliable functioning of the whole equipment.</p> <p>Part B: Field tests on wild animals are to be conducted during the summer months as of June 2011 in harbour porpoise "hot spots" off Fredericia and or Fyns Hoved, Danmark.</p>
<p>Project Personnel</p>	<p>The project is to be carried out by the applicant and a field assistant and will be supported by partners in the institutions mentioned above.</p>
<p>Budget Estimates</p>	<p>Part A: Building of self-contained, remote-controlled PAL transducer, with buoyant waterproof housing, LED, mooring etc... physical testing in tank and at sea Lump sum: € 900.- + € 171.- (19% VAT) = € 1,071.-</p>



	<p>Part B: Tests in the field 4 x 5 days scientist à € 180.- 4 x 5 days field assistant à € 80.- rental of theodolite equipment € 3,200.- 4 x 4 overnight stays à € 90.- 4 trips à € 100.- Data analysis scientist 8 days à € 180.- Sum Part B: € 11,680+ € 2,219.20 (19% VAT) = € 13,899.20</p> <p>Total incl. VAT: € 1,071 + € 13,899 = € 14,970,20</p>
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**FORMAT FOR PROJECT PROPOSALS
FOR THE CONSIDERATION OF THE ASCOBANS ADVISORY COMMITTEE**

<p>Title Behavioural responses of bottlenose dolphins (<i>Tursiops truncatus</i>) to playbacks of pile driving sounds recorded during the construction phase of offshore wind farms</p>	<p>Justification: Conservation and Management Plan Res.6.2</p>	<p>Project ID: 2011/04</p>
<p>Implementing Agency / Applicant</p>	<p>Sander van der Heul Bsc.; Head of research / Senior trainer marine mammals; Dolfinarium department Boudewijn Seapark; A. de Baeckestraat 12, 8000 Bruges, Belgium. Office 0032 50 408415; Cell 0032 496 153613; Mail sander.van.der.heul@telenet.be</p> <p>Dr. ir. Ron A. Kastelein; Owner / Director Sea Mammal Research Company (SEAMARCO); Julianalaan 46, 3843 CC Harderwijk, The Netherlands. Office 0031 341 456252; Cell 0031 6 46113872; Mail researchteam@zonnet.nl</p>	
<p>Collaborating Agencies / Other Sponsors</p>	<p>Collaborating agencies</p> <ul style="list-style-type: none"> • Boudewijn SeaPark, Bruges, Belgium • Sea Mammal Research Company (SEAMARCO), The Netherlands • TNO Science and Industry, The Netherlands • Dotmoth.com, The United Kingdom <p>Other sponsors</p> <ul style="list-style-type: none"> • Boudewijn Seapark, Bruges, Belgium • Sea Mammal Research Company (SEAMARCO), Netherlands (by reduction of hourly rate by 50%) • Possibly the Centre for Environment, Fisheries & Aquaculture Science (CEFAS), United Kingdom 	
<p>Background / Problem</p>	<p>Greenhouse gas emissions are a hot topic, and to reduce this emission many countries develop offshore wind farms. During the last couple of years the number of offshore wind farm projects is increasing exponentially. In Belgium two wind farms are in operation, and four more, and an extension of the existing ones, is planned. The offshore wind farm on the Bligh Bank is currently the one built furthest from the coast.</p> <p>There are mainly three phases in the project development: the construction phase, the operational phase and the removal phase. About the last phase very little is known. The construction phase will probably have the biggest impact on marine mammals: pile driving is known to cause very high pressure changes in the water column. As such, it may disrupt the behaviour of marine mammals at distances of many kilometres, with hearing potentially impaired at closer range (Madsen <i>et al.</i>, 2006). Each pile may take approximately 2 hours to drive. Underwater noise during their piling reaches peak to peak levels in excess of 250 dB re 1µPa @ 1m (Nedwell <i>et al.</i>, 2008)</p>	

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	<p>The bottlenose dolphin (<i>Tursiops truncatus</i>) is also found in the southern North Sea, although not as frequently as the common seal (<i>Phoca vitulina</i>), grey seal (<i>Halichoerus grypus</i>) and harbour porpoise (<i>Phocoena phocoena</i>) (Van der Meij & Camphuysen, 2006). As earlier described; No studies look directly at impacts on any cetacean species other than the harbour porpoise (<i>Phocoena phocoena</i>) (Simmonds M.P. <i>et al.</i>, 2008). However, as the coastal bottlenose dolphin is threatened along the shores of the north-east Atlantic Ocean, and that offshore wind farms will be constructed mainly in the shallow areas it inhabits, or used to inhabit, it is very important that effects of pile driving are assessed also on this cetacean species, more threatened with local extinction than the harbour porpoise.</p> <p>The team presenting this project has already performed scientific research using the bottlenose dolphins of Boudewijn Seapark, Bruges, Belgium. The study aimed at jamming dolphin sonar so that they could not follow fish inside the fishing net. This psycho-acoustic study was part of the EU funded "Necessity" project, which aimed at reducing by-catch of small cetaceans in trawler fisheries in European waters.</p>
<p>Objectives</p>	<p>Will pile driving sounds affect the behaviour bottlenose dolphins?</p> <p>To be able to answer this question we will conduct a behavioural experiment with the bottlenose dolphins of Boudewijn Seapark:</p> <p style="padding-left: 40px;">Determine behavioural changes like swimming pattern, swimming speed and respiration rate during playbacks of pile driving sounds (during the experiments the well-being of the animals is taken in consideration).</p> <p>Questions to be answered are:</p> <p>What exposure level of pile driving sounds causes no behavioural changes?</p> <p>What exposure level of pile driving sounds causes small behavioural changes? (increased respiration rate; i.e. increased energetic need)</p> <p>Will there be a displacement of the animals during playbacks of pile driving sounds? (i.e. potential reduction of the foraging area in the wild)</p> <p>How long after the test session with the pile driving noise will it take for the animals' behaviour to return to normal?</p>
<p>Relevance to ASCOBANS</p>	<p>As mentioned before, the number of offshore wind farms has grown very fast, and many more are planned. Already during the fifth meeting (2006) of ASCOBANS, the Parties called for research on the effects of wind farms on small cetaceans (Resolution 4) A year later, during April 2007, a workshop was held in Spain: <i>Offshore wind farms and marine mammals: impacts & methodologies for assessing impacts</i>.</p> <p>A lot of research has been conducted to study the effects on common seals (<i>Phoca vitulina</i>), grey seals (<i>Halichoerus grypus</i>) and harbour porpoises (<i>Phocoena phocoena</i>). This was done especially through field surveys, by acoustic recordings, radio telemetry and land-based observations. Small cetaceans, as mentioned above, in captivity have also been the subject of studies. Wind farms are already being or will be built in coastal waters, inhabited by the bottlenose dolphin (<i>Tursiops truncatus</i>). Especially coastal and inshore regions are at stake. That's why it is important to look further into the impact on these cetaceans by</p>

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	<p>the construction of wind farms. Especially as the bottlenose dolphin is one of the many species under conservation by ASCOBANS.</p> <p>The proposed project will be beneficial to the aims of ASCOBANS in several ways:</p> <ul style="list-style-type: none"> - Attention within ASCOBANS has, up to now, been virtually limited to the harbour porpoise. It has been agreed that more attention should be paid to other species, and especially now since the ASCOBANS area has been expanded. - ASCOBANS, at its last Meeting of Parties, adopted a resolution on noise, which is very relevant to pile driving. - It should be acknowledged that the conservation status of the bottlenose dolphins in the north-east Atlantic Ocean, especially of the coastal type (of which it is uncertain to which extent it interbreeds with the offshore type) is vulnerable, with populations having disappeared from large areas, and other populations going down. - This study will address a key element (no. 3) in the ASCOBANS Advisory Committee's Triennial Activity Work Plan. - Information on the project itself, including information on bottlenose dolphins and the aim of the study, will be made public at the Boudewijn Seapark, and ASCOBANS will be mentioned. ASCOBANS (parties, secretariat) are invited to provide information about aims and background on noise impact and bottlenose dolphin conservation needs. - The ACOBANS Advisory Committee will be regularly informed about the progress of the project and be enabled to comment upon it. - The information obtained will be widely disseminated to other ASCOBANS Parties, enhancing their ability to take into account potential impact of planned wind farms on bottlenose dolphins in their management area 												
<p>Activities</p>	<p>Title: <i>Behavioural response of bottlenose dolphins to playbacks of pile driving sounds</i></p> <ul style="list-style-type: none"> • Study area <p>The study will take place in the main front pool of the Dolphin department of Boudewijn Seapark. The front pool is 36 m x 13 m, sides 4 m deep and centre 5.6 m deep. The volume of the main pool is 1649 m³. The salinity is around 22 ‰. The water is very clear.</p> <ul style="list-style-type: none"> • Animals <table border="1" data-bbox="523 1767 1307 1989"> <thead> <tr> <th>NUMBER OF DOLPHINS</th> <th>SEX</th> <th>AGE</th> <th>WEIGHT</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>Female</td> <td>8-46</td> <td>180-210 kg</td> </tr> <tr> <td>2</td> <td>Male</td> <td>8-26</td> <td>200-250 kg</td> </tr> </tbody> </table>	NUMBER OF DOLPHINS	SEX	AGE	WEIGHT	5	Female	8-46	180-210 kg	2	Male	8-26	200-250 kg
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	<ul style="list-style-type: none">• Test stimuli Recordings of pile driving sounds will be used, which were recorded in the North Sea during a pile driving of a monopile for a wind generator by TNO, the Netherlands. The sounds were recorded at a specific distance from the source. • Determination of the source level During pre-tests the source level of the pile driving sounds will be determined. We hope to be able to find two different kinds of source levels; one with just no behavioural changes, and one which causes an increased respiration rate and avoidance behaviour away from the sound source. • SPL distribution measurements To determine the sound distribution in the pool, we will use the same grid as with the behavioural recording. The SPL will be measured at several locations and depths. There will be a sound level gradient in the pool; high near the transducer, and lower at the opposite side of the pool from the transducer. • Experimental procedures Thirty minutes before the session, the underwater transducer will be placed in position. The dolphins will be in the main front pool. There will be a 15 minute baseline (no sound), after that a 15 minute test period (continuous pile driving sound with a normal strike rate) and at last a 15 minute post-test period (no sound). During the tests, an aerial camera(s) with a wide angle lens will be recording the animals from above. There will be no staff allowed near the study area. We will conduct one session per day for 5 days per week. • Analysis Two objective behavioural parameters will be used; the surfacing location of the dolphins in the pool and the number of surfacings. During analysis of the recorded data, a grid will be put on the computer screen. The grid will correspond with markers around the pool, which will be recorded with the camera. With the grid, we will be able to calculate the distance between the dolphin and the transducer. We will compare the locations and the number of surfacings from the test period and post-test period with the baseline period. Three of subjective behavioural parameters will also be recorded; the swimming speed, the respiration force and the number of jumps. • Materials One/two aerial camera(s) with wide-angle lens above the main pool. Analog to digital converter Video/audio recording equipment
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	<p>Monitor for operator Laptop for the sound files Power amplifier Underwater transducer(s) Underwater hydrophone Hydrophone pre-amplifier External hard disc to record the audio and video recordings. Speaker Bat detector Oscilloscope Volt-meter</p> <p>Computer analysis</p>																								
Outputs	<ul style="list-style-type: none"> • A written report to ASCOBANS • The ACOBANS Advisory Committee will be regularly informed about the progress of the project and be enabled to comment upon it • A scientific publication in for instance Marine Environmental Research, or Journal of the Acoustical Society of America • Educational flyers for the visitors of Boudewijn Seapark (exhibition space of dolfinarium and on internet site of park) • Publications in media (TV/radio/newspapers/magazines) • Presentation of research during conferences (Special symposia related to ecological impacts of wind parks / European Cetacean Society / European Association of Aquatic Mammals / International Marine Animal Trainers Association / Society for Marine Mammalogy) 																								
Work Plan and Timetable	<p>Research; <i>Behavioural response of bottlenose dolphins to playbacks of pile driving sounds</i></p> <table border="1" data-bbox="437 1330 1398 2029"> <thead> <tr> <th>PERIOD</th> <th>DESCRIPTION</th> <th>NUMBER OF SESSIONS</th> <th>RESPONSIBLE</th> </tr> </thead> <tbody> <tr> <td>May -August 2011</td> <td>Preparation research set-up</td> <td></td> <td>S. van der Heul</td> </tr> <tr> <td>September</td> <td>Pre test (To determine the sound levels)</td> <td></td> <td>S. van der Heul R.A. Kastelein</td> </tr> <tr> <td>September</td> <td>Sound measurements</td> <td>Before actual experiments</td> <td>Employee TNO S. van der Heul R.A. Kastelein</td> </tr> <tr> <td>September & October 2011</td> <td>Data collection</td> <td>1 per day / 5 days a week.</td> <td>S. van der Heul</td> </tr> <tr> <td>January 2012</td> <td>Sound measurements</td> <td>Before actual experiments</td> <td>Employee TNO S. van der Heul</td> </tr> </tbody> </table>	PERIOD	DESCRIPTION	NUMBER OF SESSIONS	RESPONSIBLE	May -August 2011	Preparation research set-up		S. van der Heul	September	Pre test (To determine the sound levels)		S. van der Heul R.A. Kastelein	September	Sound measurements	Before actual experiments	Employee TNO S. van der Heul R.A. Kastelein	September & October 2011	Data collection	1 per day / 5 days a week.	S. van der Heul	January 2012	Sound measurements	Before actual experiments	Employee TNO S. van der Heul
PERIOD	DESCRIPTION	NUMBER OF SESSIONS	RESPONSIBLE																						
May -August 2011	Preparation research set-up		S. van der Heul																						
September	Pre test (To determine the sound levels)		S. van der Heul R.A. Kastelein																						
September	Sound measurements	Before actual experiments	Employee TNO S. van der Heul R.A. Kastelein																						
September & October 2011	Data collection	1 per day / 5 days a week.	S. van der Heul																						
January 2012	Sound measurements	Before actual experiments	Employee TNO S. van der Heul																						

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								R.A. Kastelein
	January & February 2012	Data collection	1 per day / 5 days a week.		S. van der Heul			
	March - July 2012	Analysis and writing			S. van der Heul R.A. Kastelein			
	Preparation location							
	Pre-tests							
	Sound measurements							
	Tests							
	Analysis/writing							
		May-2011	Jun-2011	Jul-2011	Aug-2011	Sep-2011	Oct-2011	
Project Personnel	<ul style="list-style-type: none"> S. van der Heul (Principle investigator, data collection, analysis and writing manuscript) R.A. Kastelein (Advice acoustics, co-writing manuscript) N. Jennings (Statistical analysis) Employee TNO (Sound measurements and analysis) Students (data collection and analysis) 							
Steering group	<p>Scientific advice during research and writing:</p> <ul style="list-style-type: none"> Prof. dr. ir. P.J.H. Reijnders; IMARES, dept. Ecosystems, and Wageningen University, dept. Aquatic Ecosystems and Waterquality, P.O. box 167, 1790 AD Den Burg, The Netherlands. Office: 0031 317 487107; Mail: peter.reijnders@wur.nl Others recommended by The ASCOBANS Advisory Committee???? Dr. P. de Laender; Veterinarian Dolfinarium department. Dierendokters, Prins Karellaan 39, 8000 Bruges, Belgium. Practice: 0032 50 373133; Cell: 0032 477 761712; Mail: piet.delander@skynet.be 							

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	<ul style="list-style-type: none"> J. Cottyn; curator Dolfinarium; Dolfinarium department Boudewijn Seapark; A. de Baeckestraat 12, 8000 Bruges, Belgium. Office: 0032 50 408415; Cell: 0032 476 456379; Mail: johan.cottyn@boudewijnseapark.be 		
Budget Estimates	DESCRIPTION	BUDGET COSTS	EXPLANATION
	9 pre-test days	900,-	Main pool + Dolphins 1 hour x €100 x 9 days
	2 sound measurements	2.000,-	Main pool for a day €1000 x 2days
	Research; behavioural response to playback 40 days	4.000,-	Main pool + Dolphins 1 hour x €100 x 40days
	5 working days S vd Heul x 10 weeks (during research)	7.500,-	€150 per ay x 50days
	1 working day/week for 6 months S vd Heul (after research; analysis and writing publication)	3.600,-	€150 x 24days
	Working time senior trainers 40 days 30 minutes/day (conduct sessions research)	825,-	30 minutes x 2 trainers x 40days = 2400 minutes = 40 hours TOTAL: 5.5 days x €150
	Hire SEAMARCO personnel	6000,- (Incl. VAT)	500€ per day x 10 days = €5000
	Sound measurements + analysis (2 times)	5000,- (Incl. VAT)	€2.500 per time x 2
	Rent research equipment	3300,- (Incl. VAT)	€700 per month x 4 months = €2800
	Statistic analysis Dotmoth.com	500,-	€500
	ravel costs SEAMARCO	300,-	€50 per round trip x 6 trips
	TOTAL	33.975,-	

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• Funding by Boudewijn Seapark			
DESCRIPTION	BUDGET COSTS	COVERED BY	EXPLANATION
9 pre-test days	900,-	Boudewijn Seapark	Main pool + Dolphins 1 hour x €100 x 9 days
2 sound measurements	2.000,-	Boudewijn Seapark	Main pool for a day €1000 x 2days
Research; behavioural response to playback 40 days	4.000,-	Boudewijn Seapark	Main pool + Dolphins 1 hour x €100 x 40days
5 working days S vd Heul x 10 weeks (during research)	7.500,-	Boudewijn Seapark	€150 per day x 50days
1 working day/week for 6 months S vd Heul (after research; analysis and writing publication)	3.600,-	Boudewijn Seapark	€150 x 24days
Working time senior trainers 40 days 30 minutes/day (conduct sessions research)	825,-	Boudewijn Seapark	30 minutes x 2 trainers x 40days = 2400 minutes = 40 hours TOTAL: 5.5 days x €150
<u>TOTAL</u>	18.825,-	Boudewijn Seapark	

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	<ul style="list-style-type: none"> Funding by ASCOBANS <table border="1" data-bbox="437 297 1383 1055"> <thead> <tr> <th>DESCRIPTION</th> <th>BUDGET COST</th> <th>COVERED BY</th> <th>EXPLANATION</th> </tr> </thead> <tbody> <tr> <td>Hire SEAMARCO personnel</td> <td>6000,- (Incl. VAT)</td> <td>Funding</td> <td>€500 per day x 10 days = €5000</td> </tr> <tr> <td>Sound measurements + analysis TNO (2 times)</td> <td>5000,- (Incl. VAT)</td> <td>Funding</td> <td>€2.500 per time x 2</td> </tr> <tr> <td>Rent research equipment</td> <td>3200,- (Incl. VAT)</td> <td>Funding</td> <td>€700 per month x 4 months = €2800</td> </tr> <tr> <td>Statistic analysis Dotmoth.com</td> <td>500,-</td> <td>Funding</td> <td>€500</td> </tr> <tr> <td>Travel costs SEAMARCO</td> <td>300,-</td> <td>Funding</td> <td>€50 per round trip x 6 trips</td> </tr> <tr> <td>TOTAL</td> <td>15.000,-</td> <td></td> <td></td> </tr> </tbody> </table>	DESCRIPTION	BUDGET COST	COVERED BY	EXPLANATION	Hire SEAMARCO personnel	6000,- (Incl. VAT)	Funding	€500 per day x 10 days = €5000	Sound measurements + analysis TNO (2 times)	5000,- (Incl. VAT)	Funding	€2.500 per time x 2	Rent research equipment	3200,- (Incl. VAT)	Funding	€700 per month x 4 months = €2800	Statistic analysis Dotmoth.com	500,-	Funding	€500	Travel costs SEAMARCO	300,-	Funding	€50 per round trip x 6 trips	TOTAL	15.000,-		
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<p>References</p>	<ul style="list-style-type: none"> Madsen, P.T., Wahlberg, M., Tougaard, J., Lucke, K., and Tyack, P. 2006. Wind turbine underwater noise and marine mammals: implications of current knowledge and data needs. <i>Mar. Ecol. Progr. Ser.</i> 309: 279-295. Nedwell, J.R., Parvin, S.J., Edwards, B., Workman, R., Brooker, A.G. and Kynoch, J.E. 2008. Measurement and interpretation of underwater noise during construction and operation of offshore wind farms in UK waters. Subacoustech Report No. 544R0736 to COWRIE Ltd. ISBN: 978-0-9554279-5-4. Van der Meij SET, Camphuysen CJ (2006). The distribution and diversity of whales and dolphins (Cetacea) in the southern North Sea: 1970-2005. <i>Lutra</i> 49: 3-28. Simmonds, P.S., Dolman, S.J., 2008. All at sea: Renewable energy production in the context of marine nature conservation. Proceedings of the workshop on offshore wind farms and marine mammals: impacts & methodologies for assessing impacts. 6-11. 																												

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FORMAT FOR PROJECT PROPOSALS FOR THE CONSIDERATION OF THE ASCOBANS ADVISORY COMMITTEE

Funding of projects through ASCOBANS is dependent upon availability of funds. Since ASCOBANS is not a funding agency, there is no guarantee that funds will be available each year. Please also note that the maximum sum the Agreement will spend on any one project is 15,000 Euro. Also, there is no possibility for supporting long-term projects. ASCOBANS will not fund monitoring obligations of EU member states or Parties to international conventions.

The ASCOBANS Advisory Committee, which meets annually in March/April, will consider the proposals made available to its review and select those that are a priority for funding. *Please note that only projects with a direct benefit for the conservation objectives of the Agreement can be supported.* Projects covering more than one ASCOBANS Party will be favoured.

Please provide only summary information in the form below. The Secretariat will request more detailed information for selected projects only. The purpose of this form is to assist in the review and approval of the project proposal by the Advisory Committee.

Proposals received **by 15 February** of each year will be made available to the Committee for their review. Funding applications received later will not be considered until the following year.

Title	Distribution and relative abundance of harbour porpoises (<i>Phocoena phocoena</i>) over Dogger Bank and surrounding waters, Southern North Sea	Justification: (to be completed by the Secretariat)	Project ID: (to be completed by the Secretariat)
Implementing Agency / Applicant	Anna Moscrop Marine Conservation Research Ltd. 1 High Street Kelvedon Essex CO5 9AG UK +44 (0)1376 573 071 amoscrop@mcr-team.co.uk		
Collaborating Agencies / Other Sponsors	International Fund for Animal Welfare (IFAW), sponsor Anita Gilles, Forschungs- und Technologiezentrum Westküste (FTZ), collaborator and possible sponsor		

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	<p>Mieke Scheidat & Steve Geelhoed, Wageningen IMARES, collaborator and possible sponsor Jan Haelters, Management Unit of the North Sea Mathematical Models (MUMM), collaborator. Rene Swift, University of St. Andrews (assisting with training course, contracted through MCR).</p>
<p>Background / Problem</p>	<p>The status of small cetaceans in the North Sea, particularly the harbour porpoise <i>Phocoena phocoena</i> (Linnaeus, 1758), has been of concern for many years. Further research effort is required to establish current trends in porpoise distribution in offshore waters of the North Sea and provide baseline data for mitigating activities that have the potential to disturb their natural behaviour and distribution.</p> <p>The aim of the proposed survey would be to investigate the distribution and relative abundance of harbour porpoises over the Dogger sandbank and surroundings in the southern North Sea. Standardised visual and acoustic line transect protocols will be used to make results comparable to previous studies. Surveys will be conducted during the autumn / winter months (actual timing to be confirmed following consultation with partners and sponsors) when there has been relatively little offshore boat-based effort. Vessel surveys will ideally be complemented with aerial effort, conducted by partner groups; in addition, results from an autumn/winter offshore survey could be compared to datasets of aerial surveys conducted in Belgium, Netherlands and Germany to investigate local migration/seasonal movements.</p> <p>A further aim of the project, for which funding is sought from ASCOBANS, is to provide an opportunity for individuals from across Europe to participate in a combined acoustic and visual survey. This would include training in the process of design, equipment setup and maintenance, data collection and analysis. Funds are requested from ASCOBANS to contribute to the additional costs associated with operating the survey in this way, accommodating additional participants (nominated by ASCOBANS and/or member states), conducting the training and providing appropriate materials and facilities.</p>
<p>Objectives</p>	<p>The intended goals of this project include:</p> <ul style="list-style-type: none"> - Harmonising methodologies for harbour porpoise acoustic surveys and promoting the exchange of ideas and understanding across field workers, analysts and those with management and conservation responsibilities. - Survey results contributing to baseline data on the distribution of North Sea porpoises and providing novel acoustic data to update on the last SCANS survey conducted in 2005.
<p>Relevance to ASCOBANS</p>	<p>This project is particularly pertinent in terms of assessing the status and seasonal movements of the North Sea population of harbour porpoises (as specified under 2a of the Annex of the Agreement and Action 7 of the Conservation Plan for harbour porpoises). The proposed surveys will improve existing methods with the combination of visual, acoustic and aerial methodologies. Overall, the work will aid the implementation of the</p>

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	<p>Conservation Plan for Harbour Porpoises in the North Sea (Action Point 8 of the Triennium Work Plan). In addition, this project demonstrates close cooperation amongst governmental and non-governmental organisations working in partnership to improve knowledge and conservation of harbour porpoises within waters of the ASCOBANS agreement.</p>									
Activities	<p>The Research Vessel R/V Song of the Whale (which is owned by the International Fund for Animal Welfare, and managed and operated by Marine Conservation Research Ltd) would be used to conduct offshore visual and acoustic surveys using a team of 8-10 personnel. The southern North Sea survey area would be treated as a single survey block and randomly generated tracklines will be planned to provide equal coverage probability. Acoustic surveys, using software developed by IFAW (e.g. RainbowClick and Logger) will take place for 24 hrs/day in sea condition up to Beaufort 6; visual surveys may be conducted when appropriate during daylight hours in suitable sea state conditions (Beaufort three or less) from sightings platforms with eye-heights of 5 and/or 11 m above sea-level. Dual-platform effort may be used to assess the probability of detection on the transect line and to allow for responsive movement of animals in relation to the ship. The survey vessel and all necessary equipment will be provided by MCR for a period of 15 days of survey effort; in addition, nominated participants could take part in a training course – covering planning, set up, data collection and analysis - prior to the survey itself, as well as the survey.</p> <p>Additionally, the aim is to coordinate vessel surveys with aerial survey effort, undertaken by Belgian, Dutch and German partners. Currently, dedicated aerial surveys for harbour porpoises are conducted over Belgian, Dutch and German waters. With partners coordinating efforts, this would provide a unique opportunity to compare the different survey methodologies. Aerial survey data from previous surveys may be available for comparative analysis.</p>									
Outputs	<p>Outputs to include:</p> <ul style="list-style-type: none"> - Practical, theory and boat-based training of ASCOBANS nominated personnel. - Cruise report upon completion of vessel survey. - Final report upon completion of post-process data analysis. - Publication of results in peer-reviewed journal as appropriate, including aerial survey data and analysis if possible. 									
Work Plan and Timetable	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Activity</th> <th style="width: 30%;">Start date</th> <th style="width: 35%;">End date</th> </tr> </thead> <tbody> <tr> <td>Activity (who is responsible)</td> <td>Start date</td> <td>End date</td> </tr> <tr> <td>Vessel survey (all</td> <td>Autumn/winter</td> <td>Duration approx</td> </tr> </tbody> </table>	Activity	Start date	End date	Activity (who is responsible)	Start date	End date	Vessel survey (all	Autumn/winter	Duration approx
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	partners)	2011	2-3 weeks total including training days, passage time and survey	
	Acoustic survey training (MCR)	3 days prior to survey		
	Aerial surveys (FTZ, IMARES, Belgium)	Concurrent with vessel survey		
	Cruise report (MCR)	2 weeks following completion of vessel survey		
	Final report (MCR to coordinate)	4 months after survey (depending on inclusion of aerial survey results/data)		
Project Personnel	<p>Anna Moscrop, Project Manager, and Dr Oliver Boisseau, Senior research scientist. (Project coordinators). Marine Conservation Research Ltd. 1 High Street, Kelvedon, Essex, CO5 9AG. UK. t. +44 1376 573071, m. +44 7801 613 539.e. amoscrop@mcr-team.co.uk</p> <p>Dr Meike Scheidat, DLO Research (project partner), Wageningen IMARES Texel Landsdiep 4, 1797 SZ't Horntje postbus 167, 1790 AD Den Burg The Netherlands t. +31 317487108, m +31 6 30459335, e. meike.scheidat@wur.nl</p>			

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	<p>Dr Anita Gilles (project partner), Forschungs- und Technologiezentrum Westkueste University of Kiel Hafentoern 1 25761 Buesum Germany t. +49 (0)4834-604105, f +49 (0)4834-604199 e. gilles@ftz-west.uni-kiel.de</p> <p>Jan Haelters (project partner), Koninklijk Belgisch Instituut voor Natuurwetenschappen, departement Beheerseenheid van het Mathematisch Model van de Noordzee (BMM) 3e en 23e Linierregimentsplein 8400 Oostende, België t. +32(0)59.70.01.31, m. +32(0)477.25.90.06 fax: +32(0)59.70.49.35 e: j.haelters@mumm.ac.be</p> <p>Rene Swift (Training coordinator, acoustic survey methods) University of St Andrew's Scottish Oceans Institute East Sands University of St Andrews St Andrews Fife KY16 8LB UK t. 01334 462663. e. rjs30@st.andrews.ac.uk</p>
Budget Estimates	<p>IFAW has been approached to provide core funding for the basic 15 day vessel survey. Partner organisations are providing personnel, planning and logistical assistance, and if funds are available, the vessel survey period may be extended based on additional contributions (at this stage not confirmed).</p> <p>Funds requested from ASCOBANS will support participants board and accommodation for training and survey, the training course and materials and assist with the costs of operating the vessel for the survey and training</p>

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(subsidised by core funding)			
BUDGET ESTIMATES			
	Item	€	Funding source
	R/V Song of the Whale, including staffing and field equipment	57,000.00	€ IFAW core funding + other partners
	Data analysis and write up, including any publication	27,000.00	€ IFAW core funding + other partners
	Trainers and materials for acoustic survey and analysis techniques training	4,500.00	€ ASCOBANS
	Vessel time during pre survey training	6,000.00	€ ASCOBANS
	4 x participants costs at sea during survey	2,400.00	€ ASCOBANS
	4 x Travel costs for participants	1,200.00	€ ASCOBANS
	Project total	98,100.00	€
	Total budget requested from ASCOBANS	14,100.00	€

For more information please contact the ASCOBANS Secretariat at ascobans@ascobans.org.

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**PROPOSAL FOR SAMBAH EXHIBITION
FOR THE CONSIDERATION OF THE ASCOBANS ADVISORY COMMITTEE**

Title SAMBAH exhibition	Justification: (to be completed by the Secretariat)	Project ID: (to be completed by the Secretariat)
Implementing Agency / Applicant	Mats Amundin Mats.amundin@kolmarden.com +46 11 249018 +46 705 470427 Kolmårdens Djurpark SE-618 92 Kolmården Sweden Indicate the organization/institution or individual making the proposal, which would be responsible for the implementation of the project, if approved. Full contact details of the responsible individual should be provided.	
Collaborating Agencies / Other Sponsors	Hel Marine Station, University of Gdansk, Poland National Environmental Research Institute, Denmark Särkänniemi Adventure Park, Finland German Oceanographic Museum, Germany AquaBiota Water Research, Sweden Indicate possible other organizations/institutions or individuals collaborating with the implementing agency in the conduct of the project.	
Background / Problem	Background: SAMBAH – Static Acoustic Monitoring of the Baltic Sea Harbour Porpoise is an international project funded by LIFE+, with the ultimate goal of securing the conservation of the Baltic Sea harbour porpoise. SAMBAH will deploy 300 porpoise click detectors in the Baltic Sea from May 2011 to May 2013, and using the resulting data will estimate density, abundance and important areas for the Baltic Sea population of harbour porpoises. Proposed project: In the SAMBAH proposal to LIFE+, an exhibition of the project is described, to be shown at three different locations throughout the project area, (at Kolmården Wildlife Park, Sweden, at Särkänniemi Adventure Park, Finland and at Hel Marine Station, Poland). In the proposal to LIFE+, the exhibition is envisioned as a simple poster exhibition. The present proposal, however, is submitted to enable us to make the exhibition available to more people by showing it in more than three locations. Also, we	

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	<p>would like to include a 3D-model of a harbour porpoise and a dummy of the porpoise click detector in the exhibition to make it more visually interesting and appealing to the public.</p> <p>Briefly describe issues/problems to be addressed by the project. Please indicate whether the proposed project is a new activity and its possible linkages with already ongoing/planned initiatives.</p>
<p>Objectives</p>	<p>The main objective of the present project is to increase the knowledge of the general public about the Baltic Sea harbour porpoise and the SAMBAH project.</p> <p>We are aiming at making the exhibition available on a total of eleven different locations such as museums and other public attractions around the Baltic Sea. The exhibition will therefore be produced in a total of eleven copies, so that each copy can be shown for the most part of two years and at least for a total of one year at each location. The exhibition texts will be translated so that each exhibition is printed in the local language of the hosting organisation.</p> <p>Below is a list of locations which have all expressed interest in showing the exhibition (except for the three original locations mentioned above):</p> <ul style="list-style-type: none"> The Swedish Museum of Natural History, Sweden The Maritime centre in Simrishamn, Sweden The Nature room at Stenshuvud, Sweden The Nature room at Västervik, Sweden Fjord & Bælt, Denmark Natur Bornholm, Denmark The Natural History Museum in Copenhagen, Denmark The German Oceanographic Museum, Germany <p>Briefly specify the project objective as the overall intended achievement. This part should include one or two main objectives, possibly supplemented by more specific objectives, which could provide more structure to the design of the project. Objectives are intended goals and should be clearly distinguished from outputs and activities.</p>
<p>Relevance to ASCOBANS</p>	<p>SAMBAH as a whole is completely in line with the Conservation and management plan in the ASCOBANS agreement, especially point 1. Habitat conservation and management, and 2. Surveys and research. SAMBAH is also fulfilling recommendations of the Jastarnia Plan to <i>Develop and apply new techniques (e.g. acoustic monitoring) for assessing trends in Abundance</i>, and to <i>identify high-risk areas</i> for bycatch. SAMBAH is also relevant to point 5 of the Conservation issues of the Triennium Work Plan, to continue <i>promoting the implementation of the Jastarnia Plan</i>.</p> <p>The present project is in line with point 5 of the ASCOBANS</p>

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	<p>Conservation and management plan of <i>information and education to the general public</i>, covering 5 of the countries around the Baltic Sea, all of which are parties to the ASCOBANS agreement.</p> <p>The proposed exhibition is also highly relevant to issues of Communication, Education and Public Awareness of the Triennium Work Plan, especially point 28 concerning <i>collaborating with partner organizations to develop joint actions in educational activities</i>. The exhibition is also a highly visible way to actively promote the protection and recovery of the Baltic Sea harbour porpoise, as mentioned under Public Awareness in the Jastarnia Plan.</p> <p>Only projects directly relevant to the conservation objectives of ASCOBANS will be supported. Briefly explain the pertinence of the project for the attainment of ASCOBANS goals and justify by explaining how the project helps to address the relevant Activities in the Agreement's Triennium Work Plan. Include references to other decisions or documents/instruments produced within the Agreement, such as the Agreement's Conservation and Management Plan, Resolutions or actions recommended by the Advisory Committee as appropriate.</p>
<p>Activities</p>	<p>The SAMBAH exhibition will be developed by the SAMBAH Dissemination working group, consisting of 5 persons from the SAMBAH project. The exhibition will consist of five posters or rollups, plus a 3D model of a harbour porpoise, about 110 cm long, and a dummy of the C-POD; the porpoise click detector used in SAMBAH. The tasks to be performed are listed below:</p> <ul style="list-style-type: none"> A) Writing of texts for the exhibition posters 2 weeks work divided over the working group B) Translation of texts to Swedish, Finnish, Polish, German and Danish 2 weeks work divided over the working group C) Collection of pictures to be included 1 week's work divided over the working group D) Layout of posters/rollups 1 week's work by one person E) Printing of posters/rollups in Poland 2 weeks F) Production of 3D models of porpoise in Poland 2 months G) Production of C-POD dummies in UK 2 months H) Shipping of all parts to one central distributor in each country 2 weeks I) Transport of exhibition to all locations 1 week J) Set up of exhibition at all locations 2 weeks

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	<p>It is important to note that only costs for printing of eight exhibitions (E), production of 3D models (F) and C-POD dummies (G) and shipping (H-I) is suggested for funding from ASCOBANS. Personnel costs for development of the exhibition (A-D) and printing of three exhibitions (E) will be covered by the SAMBAH project budget, and set up of the exhibition (J) will be handled by the hosting organization.</p> <p>Briefly describe the work or the tasks to be performed. As the main element of the project's design, this section should outline the methodologies to be employed, personnel and equipment needs, location and expected duration of individual actions. Actions should be clearly related to the outputs described below.</p>
<p>Outputs</p>	<p>The following outputs will be produced using ASCOBANS funds:</p> <ol style="list-style-type: none"> 1) Eight exhibitions of 5 roll ups each 2) Eleven 3D models of harbour porpoise 3) Eleven C-POD dummies <p>Indicate the specific products or services (e.g. reports, publications) produced by the activities to achieve the project objectives, including scientific, conservation and management and educational outputs.</p>
<p>Work Plan and Timetable</p>	<p>As the development of the exhibition (A-D) will be carried out for the three exhibitions financed by the SAMBAH project, this work has already started. The layout is expected to be ready for printing in the end of April, which means that by the time the ASCOBANS Advisory Committee has made a decision about funding, everything will be ready to print.</p> <p>For a detailed work plan and time table please see Annex 1.</p> <p>As a general rule, small-scale projects funded by ASCOBANS should be completed within one year, and their expected duration should not exceed 2-3 years. Indicate proposed beginning and end dates.</p> <p>The work plan sets out the timetable for carrying out project activities and the delivery of outputs. The timetable should include start and end dates for each activity and indicate who is responsible for its implementation. The information is best presented as a table.</p>
<p>Project Personnel</p>	<p>Members of the SAMBAH Dissemination working group:</p> <p>Ida Carlén, ida.carlen@aquabiota.se SAMBAH project manager, responsible for dissemination actions in SAMBAH, coordinator of Dissemination working group AquaBiota Water Research Phone: +46 8 161027 Address: Svante Arrhenius väg 21A SE-114 18 Stockholm</p>

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	<p>Sweden</p> <p>Line A. Kyhn, lky@dmu.dk PhD, SAMBAH assistant National Environmental Research Institute, Denmark</p> <p>Signe Sveegaard, sign@dmu.dk PhD, SAMBAH assistant National Environmental Research Institute, Denmark</p> <p>Monika Kosecka, ocemkosecka@ug.edu.pl SAMBAH assistant Hel Marine Station, University of Gdansk, Poland</p> <p>Nitta Virolainen, nitta.virolainen@sarkanniemi.fi MSc, Dolphinarium biologist Särkänniemi OY, Finland</p> <p>Name, position, affiliation, contact details, role within the project and a brief profile should be given for at least the most prominent members of the project team. Succinct CV can be attached to the project proposal.</p>
Budget Estimates	<p>For a detailed budget of the project, please see Annex 2.</p> <p>Every project proposal must include a detailed project budget. A breakdown of the expected costs of the project should be prepared. Purchase of non-expendable equipment through ASCOBANS funding is accepted only exceptionally, and the equipment will remain the property of UNEP/ASCOBANS, which will decide at the closure of the project on its disposal or retention.</p> <p>The budget should include not only the funds requested of ASCOBANS, but also possible other financial resources made available by other sponsors or collaborating agencies. The budget should be presented in a tabular format and, where applicable, should clearly indicate the expected source of the various amounts budgeted.</p>

For more information please contact the ASCOBANS Secretariat at ascobans@ascobans.org.

Annex 1 – Workplan

Action		Start date	End date	Responsible
A	Writing of texts for the exhibition posters	1 Feb 2011	15 March 2011	Coordinating: Ida Carlén, AquaBiota Water Research
B	Translation of texts to Swedish, Finnish, Polish, German and Danish	15 March 2011	15 April 2011	Coordinating: Ida Carlén, AquaBiota Water Research
C	Collection of pictures to be included	1 March 2011	31 March 2011	Coordinating: Ida Carlén, AquaBiota Water Research
D	Layout of posters/rollups	1 April 2011	30 April 2011	Ida Carlén, AquaBiota Water Research
E	Printing of posters/rollups in Poland	15 May 2011	31 May 2011	Monika Kosecka, Hel Marine Station, Poland
F	Production of 3D models of porpoise in Poland	1 May 2011	31 May 2011	Monika Kosecka, Hel Marine Station, Poland
G	Production of C-POD dummies in UK	1 May 2011	31 May 2011	Ida Carlén, AquaBiota Water Research
H	Shipping of all parts to one central distributor in each country	15 May 2011	15 June 2011	Coordinating: Ida Carlén, AquaBiota Water Research
I	Transport of exhibition to all locations	1 June 2011	30 June 2011	Coordinating: Ida Carlén, AquaBiota Water Research
J	Set up of exhibition at all locations	15 June 2011	15 July 2011	Coordinating: Ida Carlén, AquaBiota Water Research

Annex 2 – Budget

Action		Price per unit	Number of units needed	Total costs	Funds available from
A	Writing of texts for the exhibition posters	200 € per day	10 days	2 000	SAMBAH project funds
B	Translation of texts to Swedish, Finnish, Polish, German and Danish	200 € per day	10 days	2 000	SAMBAH project funds
C	Collection of pictures to be included	200 € per day	5 days	1 000	SAMBAH project funds
D	Layout of posters/rollups	200 € per day	5 days	1 000	SAMBAH project funds
E	Printing of roll ups	80 €	5 per exhibition x 3 exhibitions = 15	1 200 €	SAMBAH project funds
E	Printing of roll ups	80 €	5 per exhibition x 8 exhibitions = 40	3 200 €	ASCOBANS
F	3D model of harbour porpoise	575 €	1 per exhibition x 10 exhibitions = 10	5 750 €	ASCOBANS
G	C-POD dummy	60 €	1 per exhibition x 10 exhibitions = 8	600 €	ASCOBANS
H	Shipping of 3D model from Poland to each country	200 € per country	Exhibition shown in 5 countries = 5	1 000 €	ASCOBANS
H	Shipping of C-POD dummy to each country	100 € per country	Exhibition shown in 5 countries = 5	500 €	ASCOBANS
I	Transport of exhibition within each country	150 € per location	Poland = 0 (delivered directly to Hel) Germany = 0 (delivered directly to GOM) Finland = 0 (delivered directly to Särkänniemi) Denmark = 3 (from NERI to 3 locations) Sweden = 5 (from AquaBiota to 5 locations)	1 200 €	ASCOBANS
			Total ASCOBANS funding	12 250 €	
			Total SAMBAH project funding	7 200 €	
			Grand total	19 450 €	