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



# **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 <sup>3</sup> . Forschung. Fakten. Fantasie.	14,971 EUR
4	Behavioural responses of bottlenose dolphins ( <i>Tursiops truncatus</i> ) to	Sander van der Heul / Boudewijn Seapark	15,000 EUR
	during the construction phase of offshore wind farms	Dr. ir. Ron A. Kastelein / Sea Mammal Research Company (SEAMARCO)	
5	Distribution and relative abundance of harbour porpoises (Phocoena phocoena) 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

Title		Justification:	Project ID:
Innovative conservation genetic analyses of Baltic Sea harbour porpoise: analysing sub-fossil samples to understand past change; development of genetic monitoring methods.		Conservation and Management Plan Jastarnia Plan	2011/01
Implementing Agency / Applicant	Dr Andrew Foote, Centre for GeoGenetics, Natural History Museum of Denmark, University of Copenhagen, Øster Volgade 5-7, Copenhagen K, DK-1350, Denmark		
Collaborating Agencies / Other Sponsors	Magnus Wahlberg, Fjord-Bælt Centre, Kerteminde, Denmark		
Background / Problem	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.		
Objectives	Using ancient DNA a we will track the ent Baltic Sea to infer d proxy to identify the genetic diversity and e Second, we aim to te samples, which could but in addition to ic population of origin.	nalysis of the same data ire genetic history of the lemographic change usin timing of population fragn effective population size. est a method for genetic is be used in conjunction w dentifying presence or a	set of sub-fossil samples harbour porpoise in the org genetic diversity as a nentation and declines in monitoring from seawater ith other survey methods, bsence could also infer
Relevance to ASCOBANS	The proposed project the Activities highlig including being highly of the Recovery Plar proposed strategic p analysis would help effective population s provide a low-cost, eff the data from survey recovery plan.	t would significantly contr hted in the Agreement's informative to the impler of for Baltic Harbour Porp priority in the Strategy establish a much longer- ize estimates. The geneti fective sampling method, w s and be highly informati	ribute towards several of s Triennium Work Plan, mentation and monitoring oises (Jastarnia Plan), a plan. The ancient DNA term baseline dataset of c monitoring protocol will which will greatly enhance ve of the success of the

Activities	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.
	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.
	Several coalescent methods will then be applied to track demographic change and population fragmentation over time.
	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 1m <sup>2</sup> 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. 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. 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.
Outputs	It is anticipated that the work on sub-fossil sample will lead to a
2 <b></b>	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.
	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.

Work Plan and	Date	Activity		
Timetable	April 2011	Sample collection		
	May - October			
	2011	DNA extraction, amplification and sequencing		
	November –			
	December 2011	Data analysis		
	January - March	Write up and submission of final report and		
	2012	manuscripts for publication		
		Dr Andrew Foote will be responsible for the		
		implementation of all stages of the project.		
Project	Dr Andrew Foote			
Personnel	Postdoctoral Fellow			
	Centre for GeoGene	tics, Natural History Museum of Denmark, University		
	of Copenhagen, Øst	er Volgade 5-7, Copenhagen K, DK-1350, Denmark		
	FooteAD@gmail.cor	n		
	+4552323841			
	See below for CV.			
Budget	Sequencing of 100	sub-fossil samples using primer extension capture		
Estimates	and high-throughput sequencing using the Illumina platform = 70 euros			
	per sample			
	Sub-total=7,000 eu	Sub-total=7,000 euros.		
	Sequencing of 10 seawater samples, using the 454 FLX platform for deep coverage sequencing = 100 euros per sample.			
	Sub-total = 1,000 e	uros		
	Travel costs for sam	ple collection = 1,000 euros		
	Total = 9,000 euros			
	This budget is grea	atly reduced by infrastructure and personnel costs		
	already having beer	covered by a grant from Danish National Research		
	Foundation and a M	arie Curie FP7 Intra-European fellowship.		
	The budget should i	nclude not only the funds requested of ASCOBANS,		
	but also possible o	other financial resources made available by other		
	sponsors or collabol	ating agencies. The budget should be presented in		
	expected source of t	he various amounts budgeted		

# 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 longlived 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 Batchelors 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 6<sup>th</sup> 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

Title		Justification:	Project ID:	
Photo identification of Harbour Porpoise, <i>Phocoena phocoena</i> , using a digiscope; a feasibility study.		Conservation and Management Plan	2011/02	
Implementing Agency /	Individual: Hannah Keo	gh		
Applicant	Address: Leabeg Lane, Newcastle, Co. Wicklow, Ireland			
Collaborating Agencies	Individual: Thomas Feld	e- Manx Whale & Dolph	in Watch	
/ Other Sponsors	Address: 1 Tynwald Road, Peel, Isle of Man, IM5 1JZ.			
Background / Problem	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.			
Objectives	The objective of this project is to test the efficacy of land based digiscoping as a tool for photo identification of Harbour Porpois 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. Finally, to assess whether enough individuals have distinguishable features to make photo-identification a useful to 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.		y of land based larbour Porpoise. ojectives. Firstly, of good enough dly, to assess nough viduals. ave ation a useful tool orpoise. If all of e, it will then be any form of ight into the	

Relevance to ASCOBANS	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.
	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.
	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.
Activities	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.
	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 Man 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.
	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.
	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

	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.
Outputs	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".
	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.
	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.
	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.
	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.

Marile Diamand		10044			
Work Plan and	Start date – 30 <sup>°°</sup> April 2011				
Timetable	End date – 30 <sup>th</sup> April 2012				
	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	
Project Personnel	Hannah Keogh –	Photographer			
	Tel: +3538728192	201			
	Affiliation – Volun	teer with Manx	Whale and Dolp	ohin Watch.	
	Hannah Keo	oah volunteered	for the Manx W	/ildlife Trust and	
	Manx Whale and summer of 2010. aspects of the ma based watches fo data entry, checki cetaceans and ba with marine educa	Dolphin Watch During this time rine wildlife wor r cetaceans and ng and analysis sking sharks, a ation and interpr	for 4 months du e, she was invol k carried out, ir d basking shark s, photo identific ssisting at publi retation.	ring the ved in many ncluding land s, boat surveys, cation of c events and	
	Hannah is a succeeding in tak in Manx waters fo Risso's Dolphins Dolphin catalogue FETAC level 5 ph	highly skilled w ing the first pho r several years. which have bee e, both from land otography quali	vildlife photogra tograph of a hu She also took n used in the M d and boat. Han fication receive	pher, even mpback whale many images of anx Risso's anah also has a d in Eire.	
	Tom Felce – Supe	ervisor			
	Tel: +4476243307	185			
	Affiliation – Direct	or of Manx Wha	ale and Dolphin	Watch	
	Tom Felce h Watch since 2009 organisation since since then include catalogue with WI abundance estima line transect surve identification cata Common Dolphin Manx waters, ima	as been directo and has been 2007. Projects the creation of DCS and SWF, ate for Harbour eys for cetacear logues have be s, Bottlenose Do ges being share	or of Manx Wha the lead resear that have beer an Irish Sea Ri derivation of the Porpoise in Mans in Manx wate en set up for Ri olphins and Min ed with other ma	le and Dolphin cher of the n completed isso's Dolphin e first ever nx waters and ers. Photo- sso's Dolphins, ike Whales in arine mammal	

	research organisations around the Irish Sea.			
	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.			
Budget Estimates				
		Task	Cost	
		Photography	£1000 (time)	
		Travel to sites	£200 (£2 per trip)	
		Cataloguing	£400 (time)	
	Report production £400 (time)			
	All hard driv Watch.	equipment needed for to to the second s	he study (camera, digisco d by Manx Whale and Do	ppe, Diphin



Title		Justification:	Project ID:
Harbour porpoise alerti detailed field tests usin	ing device (PAL): g theodolite-tracking		
Implementing Agency / Applicant	Prof. Dr. Boris Culik F <sup>3</sup> : Forschung . Fakten . Fant 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: <u>bculik@fh3.de</u> Web: <u>www.fh3.de</u>	asie	
Collaborating Agencies	L3 ELAC Nautik, Kiel MC-Elektronik, Schwedeneck IFM-GEOMAR, Kiel WTD71, German Navy, Kiel	ζ.	
German Summary	"PAL" (Porpoise Alarm), ein n nutzt die Kommunikationslaut vor tödlichen Netzen zu warn Labor und im Freiland zeigen verstehen und darauf mit inte reagieren. Nun soll mittels Th nung des Schweinswalverhal Reaktion auf PAL quantifizier	euartiges akustisch te von Schweinswal en. Erste Versuche , dass die Tiere das nsiver akustischer l eodolit eine eingeh tens im Freiland erf en zu können.	nes Warngerät, len um die Tiere an Tieren im s Signal richtig Jntersuchung endere Aufzeich- olgen, um die
	Die wichtigste Todesursache ist die Kollision mit Netzten. V dern sich die Tiere leicht und können die Netze aus feinem gen noch akustisch mit Hilfe i	für Schweinswale in /or allem in Kiemen ertrinken (Culik, 20 Nylongarn weder r hrer Klicklaute rech	n freier Wildbahn netzen verhed- 10). Die Tiere nit Hilfe ihrer Au- tzeitig erkennen.
	Um diesen sogenannten Beif vor allem Pinger eingesetzt. I welche für Schweinswale una Als Reaktion halten die Tiere Abstand von bis zu mehreren	ang zu vermeiden, Dabei handelt es sic angenehme Geräus zu Pinger-bestückt 100 Metern ein (Cu	werden derzeit ch um Geräte, che aussenden. en Netzen einen ulik et al. 2001).
	Solche akustischen Vergrämi jedoch auch von ihren natürlig ßerdem, das haben verschieg	ungsgeräte halten S chen Nahrungsress dene Untersuchung	Schweinswale ourcen fern. Au- en gezeigt (z.B.



Koschinski et al. 2006), übersteigt der von den Tieren eingehalte- ne Abstand bei weitem die Maximaldistanz von 2-4 m, aus der Schweinswale mit Hilfe Ihrer Echoortung ein Netz noch als Hin- dernis 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 Beifangvermeidungs- methoden angesehen werden.
Mit Hilfe des neuartigen PAL-Warngeräts werden hingegen Warn- geräusche 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 entspre- chend 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 Wiederho- lungsrate der Klicks im Laufe des Signals von 400 Klicks/s konti- nuierlich auf 1100 Klicks/s gesteigert.
Die Reaktion von Schweinswalen auf dieses Signal wurde im Herbst 2010 in Versuchen im Fjord&Baelt Center im dänischen Kerteminde getestet. Die Reaktionen von vier Versuchstieren wurden in jeweils 20 Versuchen akustisch und visuell aufgezeich- net und ausgewertet. Während der einminütigen Sendezeit des künstlichen Signals untersuchten die Tiere die Schallquelle inten- siv 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 Bioso- nar-Aktivität im Vergleich mit der Minute vor und nach dem Signal festgestellt werden. Die Tiere steigerten die Anzahl der abgege- benen Klicks im Mittel um 40%.
Diese positiven Ergebnisse wurden an freilebenden Schweinswa- len 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 Signalse- quenz gestartet und gleichzeitig unter Wasser die akustische



	Reaktion der Tiere mit Hilfe eines Klickdetektors aufgezeichnet. Das Ergebnis bestätigt die Resultate aus dem Aquarium: sowohl die Annzahl als auch die Lautstärke der empfangenen Klicks stie- gen bei Einsatz des Warngerätes signifikant an (von 105 auf 147 Klicks/Min; p<0,05, Wilcoxon Test).
	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.
	In detaillierteren Versuche vor Fredericia und Fyns Hoved, Däne- mark, soll jetzt von Land aus mittels Theodolit das Verhalten der Tiere im Bereich der Schallquelle vermessen werden. Dabei ge- ben die gemessenen Auftauchpunkte der Tiere Aufschluss über Richtung, Geschwindigkeit, Annäherung und Aufenthaltsdauer. Und die freilebenden Schweinswale werden nicht durch die An- wesenheit eines Bootes gestört.
English Summary	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 inten- sifying 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.
	One of the main tools to reduce by-catch in fisheries, to date, are pingers. Pingers are acoustic devices which produce sounds re- sulting 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).
	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.
	Furthermore, pingers have the potential to scare harbour por- poises into neighbouring nets which are not pinger-equipped, be- cause e.g. these where 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).



	This entails that pingers cannot be considered as an end-point in the development of acoustic alerting devices. A newly designed Porpoise Alerting Device (PAL) generates click trains matching alarm calls recorded during porpoise communica- tion. The generated 1.4 s upsweep-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. Video and acoustic observation conducted last fall on 4 harbour
	porpoises housed at the Fjord and Baelt Centre, Kerteminde, Danmark showed a significant positive response as well as in- creased 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).
	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 signifi- cantly 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).
	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.
Relevance to ASCO- BANS	As stated in the Agreement on the Conservation of Small Cetace- ans of the Baltic and North Seas (New York, 1992), Chapter 2: 2.1 The Parties undertake to cooperate closely in order to achieve and maintain a favourable conservation status for small cetace- ans. 2.2. In particular, each Party shall apply within the limits of its ju- risdiction and in accordance with its international obligations, the conservation, research and management measures prescribed in the Annex.
	The Annex states explicitly in Chapter 2: "Studies under (c) should include research on habitat require- ments, feeding ecology, trophic relationships, dispersal, and sen- sory biology with special regard to effects of pollution, disturbance <b>and interactions with fisheries, including work on methods to</b> <b>reduce such interactions</b> .



Activities	<u>Test on naïve animals in the wild.</u> Field tests are to be conducted in an area of high Harbour Porpoise density, i.e. in the waters of the Lille Baelt, 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 immmediately compared. A total of 4 field tests series is envisaged, each lasting approx. 3-5 days, depending on weather conditions and porpoise availability.
	position. Furthermore, we will include a visual control (e.g. LED) to control that the device is truly operating.
Outputs	<ul> <li>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.</li> <li>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.</li> <li>Outputs of the activities will be in form of: <ul> <li>A novel self-contained acoustic alerting prototype</li> <li>A progress report</li> <li>A scientific publication</li> <li>public outreach and popular science reports in the local media</li> </ul> </li> </ul>



	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 knowl- edge there is no other company or organisation developing a simi- lar alerting device, the novelty of which was confirmed by Dr. Bernd Würsig, Texas A&M University. Note: The investigations proposed here are the basis for further research: In order to test whether wild porpoises learn to associ- ate 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 to- wards avoiding lethal nets in time. A negative outcome would re- quire 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).
Work Plan and Timeta- ble	<ul> <li>Part A:</li> <li>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.</li> <li>Rental of theodolite equipment and acoustic detection devices.</li> <li>Field trials and preliminary data analysis will be conducted in Kiel Fjord to ensure correct and reliable functioning of the whole equipment.</li> </ul>
	Part B: Field tests on wild animals are to be conducted during the sum- mer months as of June 2011 in harbour porpoise "hot spots" off Fredericia and or Fyns Hoved, Danmark.
Project Personnel	The project is to be carried out by the applicant and a field assis- tant and will be supported by partners in the institutions mentioned above.
Budget Estimates	Part A: Building of self-contained, remote-controlled PAL trans- ducer, with buoyant waterproof housing, LED, mooring etc physical testing in tank and at sea Lump sum: $\in$ 900 + $\in$ 171 (19% VAT) = $\in$ 1,071



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
Total incl. VAT: € 1,071 + € 13,899 <b>= € 14,970,20</b>

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

Title		Justification:	Project ID:	
Behavioural resp dolphins <i>(Tursio</i> of pile driving so construction pha	oonses of bottlenose ops truncatus) to playbacks ounds recorded during the ase of offshore wind farms	Conservation and Management Plan Res.6.2	2011/04	
Implementing Agency / Applicant	Sander van der Heul Bsc.; Hei mammals; Dolfinarium departr Baeckestraat 12, 8000 Bruges 0032 496 153613; Mail sander	ad of research / Senior tra nent Boudewijn Seapark; s, Belgium. Office 0032 50 r.van.der.heul@telenet.be	ainer marine A. de ) 408415; Cell e Possoareh	
	Company (SEAMARCO); Julianalaan 46, 3843 CC Harderwijk, The Netherlands. Office 0031 341 456252; Cell 0031 6 46113872; Mail researchteam@zonnet.nl			
Collaborating	Collaborating agencies			
Agencies / Other	Boudewijn SeaPark, Bruges, Belgium			
Sponsors	<ul> <li>Sea Mammal Research Company (SEAMARCO), The Netherlands</li> </ul>			
	TNO Science and Indu	stry, The Netherlands		
	Dotmoth.com, The Unit	ted Kingdom		
	Other sponsors			
	<ul> <li>Boudewijn Seapark, Bruges, Belgium</li> </ul>			
	<ul> <li>Sea Mammal Research Company (SEAMARCO), Netherlands (by reduction of hourly rate by 50%)</li> </ul>			
	<ul> <li>Possibly the Centre for Environment, Fisheries &amp; Aquaculture Science (CEFAS), United Kingdom</li> </ul>			
Background / Problem	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.			
	There are mainly three phases construction phase, the operative the last phase very little is kno have the biggest impact on main cause very high pressure char disrupt the behaviour of marine kilometres, with hearing poten <i>al.</i> , 2006). Each pile may take Underwater noise during their excess of 250 dB re 1µPa @ 2	s in the project developmentional phase and the removed wn. The construction phate arine mammals: pile driving the water column. The mammals at distances of the mammals at distances of the mammals at distances of the mammals at closer rates approximately 2 hours to piling reaches peak to pea the mammals at al., 2008)	ent: the oval phase. About use will probably ng is known to As such, it may of many ange (Madsen <i>et</i> drive. eak levels in	

	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</i> <i>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.
	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.
Objectives	Will pile driving sounds affect the behaviour bottlenose dolphins?
	To be able to answer this question we will conduct a behavioural experiment with the bottlenose dolphins of Boudewijn Seapark:
	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).
	Questions to be answered are:
	What exposure level of pile driving sounds causes no behavioural changes?
	What exposure level of pile driving sounds causes small behavioural changes? (increased respiration rate; i.e. increased energetic need)
	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)
	How long after the test session with the pile driving noise will it take for the animals' behaviour to return to normal?
Relevance to ASCOBANS	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 &amp; methodologies for assessing impacts.</i>
	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

	the construction of wind farms. Especially as the bottlenose dolphin is one of the many species under conservation by ASCOBANS.		
	The proposed project will be beneficial to the aims of ASCOBANS in several ways:		
	<ul> <li>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.</li> </ul>		
	<ul> <li>ASCOBANS, at its last Meeting of Parties, adopted a resolution on noise, which is very relevant to pile driving.</li> </ul>		
	- 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.		
	<ul> <li>This study will address a key element (no. 3) in the ASCOBANS Advisory Committee's Triennial Activity Work Plan.</li> </ul>		
	<ul> <li>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.</li> </ul>		
	<ul> <li>The ACOBANS Advisory Committee will be regularly informed about the progress of the project and be enabled to comment upon it.</li> </ul>		
	<ul> <li>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</li> </ul>		
Activities	Title: Behavioural response of bottlenose dolphins to playbacks of pile driving sounds		
	Study area		
	The study will take place in the main front pool of the Dolphin department of Boudewijn Seapark. The front pool is $36 \text{ m} \times 13 \text{ m}$ , sides $4 \text{ m}$ deep and centre 5.6 m deep. The volume of the main pool is $1649 \text{ m}^3$ . The salinity is around 22 ‰. The water is very clear.		
	Animals		
	NUMBER SEX AGE WEIGHT OF DOLPHINS		
	5 Female 8-46 180-210 kg		
	2 Male 8-26 200-250 kg		

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 next we will use the second size
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

	Monitor for operato Laptop for the sour Power amplifier Underwater transd Underwater hydrop Hydrophone pre-ar External hard disc Speaker Bat detector Oscilloscope Volt-meter	or nd files ucer(s) ohone mplifier to record the audio	o and video reco	ordings.	
	Computer analysis				
Outputs	<ul> <li>A written re</li> <li>The ACOB, about the p upon it</li> <li>A scientific Research</li> </ul>	<ul> <li>The ACOBANS Advisory Committee will be regularly informed about the progress of the project and be enabled to comment upon it</li> <li>A scientific publication in for instance Marine Environmental Research, or Journal of the Acoustical Society of America</li> </ul>			
	<ul> <li>Educational flyers for the visitors of Boudewijn Seapark (exhibition space of dolfinarium and on internet site of park)</li> <li>Publications in media (TV/radio/newspapers/magazines)</li> <li>Presentation of research during conferences (Special symposia related to ecological impacts of wind parks / European Cetacean Society / European Association of Aquatic Mammals /</li> </ul>				
	Marine Mar	nmalogy)			
Work Plan and Timetable	Research; Behavio	oural response of t	oottlenose dolph	ins to playbacks of	
	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	

				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			
	Pre-tests			
	Sound measurements			
	Tests			
	Analysis/writing			
		May- Jun 2011 201	- Jul- Aug 1 2011 201	g- Sep- Oct- 1 2011 2011
Project Personnel	<ul> <li>S. van der H and writing</li> </ul>	Heul (Principle inv	vestigator, data c	ollection, analysis
	<ul> <li>R.A. Kastele</li> </ul>	ein (Advice acous	stics, co-writing n	nanuscript)
	N. Jennings	s (Statistical analy	rsis)	
	Employee T	NO (Sound meas	surements and a	nalysis)
	Students (data collection and analysis)			
Steering group	Scientific advice du	iring research and	d writing:	
	<ul> <li>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</li> </ul>			Ecosystems, and stems and rg, The Netherlands. s@wur.nl
	Others reco Committee?	mmended by The	ASCOBANS A	dvisory
	<ul> <li>Dr. P. de La Dierendokte Practice: 00 piet.delande</li> </ul>	e Laender; Veterinarian Dolfinarium department. lokters, Prins Karellaan 39, 8000 Bruges, Belgium. e: 0032 50 373133; Cell: 0032 477 761712; Mail: ander@skynet.be		

	<ul> <li>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</li> </ul>			
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;	4.000,-	Main pool + Dolphins	
	behavioural response to playback 40 days		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	825,-	30 minutes x 2 trainers x 40days = 2400 minutes	
	sessions research)		= 40 hours	
	,		TOTAL:	
			5.5 days x €150	
	Hire SEAMARCO personnel	6000,- (Incl. VAT)	500€ per day x 10 days = €5000	
	Sound	5000,-	€2.500 per time x 2	
	measurements + analysis (2 times)	(Incl. VAT)		
	Rent research equipment	3300,- (Incl. VAT)	€700 per month x 4 months = €2800	
	Statistic analysis	500,-	€500	
	Dotmoth.com			
	□ravel costs SEAMARCO	300,-	€50 per round trip x 6 trips	
	TOTAL	33.975,-		
		·	<u> </u>	

	BUDGET	COVERED	EXPLANATION
9 pre-test days	900,-	Boudewijn S⊡apark	Main pool + Dolphins 1 hour x €100 x 9 days
2 sound measure⊡ents	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,-	Boud□wijn 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	

	Funding by ASCOBANS			
	DESCRIPTION	BUDGET COST	COVE D BY	EXPLANATION
	Hire SEAMARCO personnel	6000,- (Incl. VAT)	Fundi□g	€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,-	Fu⊡ding	€500
	Travel costs SEAMARCO	300,-	Funding	€50 per round trip x 6 trips
	TOTAL	15.000,-		
References	<ul> <li>Madsen, P.<sup>-</sup> P. 2006. Win implications Progr. Ser.3</li> </ul>	F., Wahlberg nd turbine un of current kr 0 <b>9</b> : 279-295.	, M., Tougaard derwater noise lowledge and c	, J., Lucke, K., and Tyack, e and marine mammals: data needs. Mar. Ecol.
	<ul> <li>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.</li> </ul>			
	<ul> <li>Van der Meij SET, Camphuysen CJ (2006). The distribution and diversity of whales and dolphins (Cetacea) in the southern North Sea: 1970-2005. Lutra 49: 3-28.</li> <li>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 &amp; methodologies for assessing impacts. 6-11.</li> </ul>			006). The distribution and ea) in the southern North
				Il at sea: Renewable ine nature conservation. re wind farms and marine r assessing impacts. 6-11.

## 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		Justification:	Project ID:
Distribution and relative abundance of harbour porpoises (Phocoena phocoena) over Dogger Bank and surrounding waters, Southern North Sea			
Implementing Agency /	Anna Moscrop		
Applicant	Marine Conservation Research Ltd.		
	1 High Street		
	Kelvedon		
	Essex CO5 9AG		
	UK		
	+44 (0)1376 573 071		
	amoscrop@mcr-team.co.uk		
Collaborating Agencies /	International Fund for Animal Welfare (IFAW), sp	onsor	
Other Sponsors	Anita Gilles, Forschungs- und Technologiezentru	m Westküste (FTZ), collabora	ator and possible sponsor

	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).
Background / Problem	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.
	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.
	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.
Objectives	The intended goals of this project include:
	<ul> <li>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.</li> </ul>
	<ul> <li>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.</li> </ul>
Relevance to ASCOBANS	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

	Conservation Plan for addition, this project organisations working	r Harbour Porpoises ct demonstrates clo i in partnership to imp	in the Nort ose cooper prove knowle	h Sea (A ation am edge and e	ction Point 8 of the Triennium Work Plan). In nongst governmental and non-governmental conservation of harbour porpoises within waters
Activities	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.				
	German partners. Cu and German waters. different survey meth analysis.	rrently, dedicated aer With partners coordir nodologies. Aerial su	nal surveys f nating efforts rvey data fr	or harbou , this wou om previo	Ir porpoises are conducted over Belgian, Dutch Ild provide a unique opportunity to compare the bus surveys may be available for comparative
Outputs	Outputs to include:				
	- Practical, theory and	d boat-based training	of ASCOBA	NS nomin	ated personnel.
	- Cruise report upon o	completion of vessel s	survey.		
	- Final report upon co	mpletion of post-proc	ess data ana	alysis.	
	- Publication of results in peer-reviewed journal as appropriate, including aerial survey data and analysis if possible.				
Work Plan and Timetable	Activity	Start date	End dat	te	
	Activity (who is responsible)	Start date	End date		
	Vessel survey (all	Autumn/winter	Duration	approx	

	partners)	2011	2-3 weeks total	
			including training	
			days, passage	
	Acquistic survey	2 dave prior to	time and Sulvey	
	training (MCR)	s 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	Anna Moscrop, Projec	t Manager, and Dr Ol	liver Boisseau, Senior	research scientist. (Project coordinators).
-	Marine Conservation	Research Ltd. 1 High	Street, Kelvedon, Ess	sex, CO5 9AG. UK.
	t. +44 1376 573071, r	n. +44 7801 613 539.0	e. amoscrop@mcr-tea	am.co.uk
	Dr Meike Scheidat. D	LO Research (project	partner).	
	Wageningen IMARES	) )		
	Texel Landsdiep 4, 17	797 SZ't Horntje postb	ous 167, 1790 AD Der	n Burg
	The Netherlands	, 1	, -	с С
	t. +31 317487108, m	+31 6 30459335, e. m	eike.scheidat@wur.n	1

	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 Jan Haelters (project partner), Koninklijk Belgisch Instituut voor Natuurwetenschappen, departement Beheerseenbeid van het Mathematisch Model van de Noordzee (BMM)
	Se en 23e Linieregimentsplein 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: <u>j.haelters@mumm.ac.be</u>
	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. <u>rjs30@st.andrews.ac.uk</u>
Budget Estimates	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).
	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

(subsidised by core funding)		
BUDGET ESTIMATES		
Item	€	Funding source
D/V Sana of the Whole, including staffing and field equipment	€	IFAW core funding + other
N/V Song of the Whale, including staning and neid equipment	57,000.00 €	IFAW core funding + other
Data analysis and write up, including any publication	27,000.00	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	ASCORANS
	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 <u>ascobans@ascobans.org</u>.

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

Title		Justification:	Project ID:
SAMBAH exhibition			
Implementing Agency /	Mats Amundin		
Applicant	Mats.amundin@kolmarden.c	<u>om</u>	
	+46 11 249018		
	+46 705 470427		
	Kolmårdens Djurpark		
	SE-618 92 Kolmården		
	Sweden		
	Indicate the organization/institution	n or individual making	the proposal, which
	contact details of the responsible in	ndividual should be prov	/ided.
Collaborating Agencies	Hel Marine Station, Universit	y of Gdansk, Polar	nd
/ Other Sponsors	National Environmental Rese	earch Institute, Den	ımark
	Särkänniemi Adventure Park	, Finland	
	German Oceanographic Mus	eum, Germany	
	AquaBiota Water Research,	Sweden	
	Indicate possible other organizati	ions/institutions or ind	ividuals collaborating
	with the implementing agency in the	e conduct of the project	t.
Background / Problem	Background:		
	SAMRAH Statio Acoustic I	Monitoring of the P	altia Saa Harbour
	Porpoise is an international	project funded by	/ I IFF+ with the
	ultimate goal of securing t	he conservation c	of the Baltic Sea
	harbour porpoise. SAMBA	H will deploy 30	0 porpoise click
	detectors in the Baltic Sea	from May 2011 to	May 2013, and
	using the resulting data will	l estimate density,	, abundance and
	porpoises.	Jailie Jea popula	
	Proposed project:		
	In the SAMBAH proposal to	LIFE+, an exhibitio	n of the project is
	described, to be shown at	three different loca	ations throughout
	ine project area, (at Koln Särkänniemi Adventure Park	Finland and at H	ark, Sweden, at
	Poland). In the proposal to L	IFE+, the exhibition	n is envisioned as
	a simple poster exhibition.	The present prope	osal, however, is
	submitted to enable us to m	ake the exhibition	available to more
	people by showing it in m	ore than three loo	cations. Also, we

	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.
	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.
Objectives	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.
	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.
	Below is a list of locations which have all expressed interest in showing the exhibition (except for the three original locations mentioned above):
	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
	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.
Relevance to	SAMBAH as a whole is completely in line with the Conservation
ASCOBANS	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.</i> <i>acoustic monitoring) for assessing trends in</i> <i>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</i> <i>of the Jastarnia Plan</i> .
	The present project is in line with point 5 of the ASCOBANS

	Conservation and management plan of <i>information and education</i> <i>to the general public</i> , covering 5 of the countries around the Baltic Sea, all of which are parties to the ASCOBANS agreement. 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</i> <i>partner organizations to develop joint actions in educational</i> <i>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. 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.
Activities	<ul> <li>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:</li> <li>A) Writing of texts for the exhibition posters</li> <li>2 weeks work divided over the working group</li> <li>B) Translation of texts to Swedish, Finnish, Polish, German and Danish</li> <li>2 weeks work divided over the working group</li> <li>C) Collection of pictures to be included</li> <li>1 week's work divided over the working group</li> <li>D) Layout of posters/rollups</li> <li>1 week's work by one person</li> <li>E) Printing of posters/rollups in Poland</li> <li>2 weeks</li> <li>F) Production of 3D models of porpoise in Poland</li> <li>2 months</li> <li>G) Production of C-POD dummies in UK</li> <li>2 months</li> <li>H) Shipping of all parts to one central distributor in each country</li> <li>2 weeks</li> <li>J) Set up of exhibition to all locations</li> <li>2 weeks</li> </ul>

	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. 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.
Outputs	The following outputs will be produced using ASCOBANS funds:
	1) Eight exhibitions of 5 roll ups each
	2) Eleven 3D models of harbour porpoise
	3) Eleven C-POD dummies
	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.
Work Plan and	As the development of the exhibition (A-D) will be carried out for
Timetable	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.
	For a detailed work plan and time table please see Annex 1.
	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.
	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.
Project Personnel	Members of the SAMBAH Dissemination working group:
	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

# **ASCOBANS Project Proposal**

	Sweden
	Line A. Kyhn, <u>Iky@dmu.dk</u> PhD, SAMBAH assistant National Environmental Research Instutute, Denmark
	Signe Sveegaard, <u>sign@dmu.dk</u> PhD, SAMBAH assistant National Environmental Research Instutute, Denmark
	Monika Kosecka, <u>ocemkosecka@ug.edu.pl</u> SAMBAH assistant Hel Marine Station, University of Gdansk, Poland
	Nitta Virolainen, <u>nitta.virolainen@sarkanniemi.fi</u> MSc, Dolphinarium biologist Särkänniemi OY, Finland
	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.
Budget Estimates	For a detailed budget of the project, please see Annex 2.
	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. 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.

For more information please contact the ASCOBANS Secretariat at <u>ascobans@ascobans.org</u>.

# Annex 1 – Workplan

Act	ion	Start date	End date	Responsible
А	Writing of texts for the exhibition	1 Feb 2011	15 March 2011	Coordinating: Ida Carlén, AquaBiota Water Research
	posters			
В	Translation of texts to Swedish,	15 March 2011	15 April 2011	Coordinating: Ida Carlén, AquaBiota Water Research
	Finnish, Polish, German and Danish			
С	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
Е	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
Н	Shipping of all parts to one central distributor in each country	15 May 2011	15 June 2011	Coordinating: Ida Carlén, AquaBiota Water Research
Ι	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
В	Translation of texts to Swedish, Finnish, Polish, German and Danish	200 € per day	10 days	2 000	SAMBAH project funds
С	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
Е	Printing of roll ups	80 €	5 per exhibition x 3 exhibitions = 15	1 200 €	SAMBAH project funds
Е	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
Н	Shipping of 3D model from Poland to each country	200 € per country	Exhibition shown in 5 countries = 5	1 000 €	ASCOBANS
Н	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 €	

Title		Justification: Project ID:				
Harbour Porpoise Day Raising awareness in the I	Netherlands	Conservation and Management Plan	2011/07			
October 2011-June 2012		North Sea Conservation Plan				
Implementing Agency / Applicant	North Sea Fou Drieharingstraa	ndation at 25				
	3511 BH Utrec Contact persor	ht, The Netherlands				
	Marchien de Ruiter, communication www.noordzee.nl					
Collaborating Agencies / Other Sponsors	SOS Dolfijn Foundation Postbus 293 3840 AG Harderwijk, The Netherlands					
	www.sosdolfijn	.nl				
Background / Problem	Harbour porpo they still face n Sea area, for a extraction, disc year thousands North Sea cour	ses are listed as a protected species. However any threats through the intense use of the North ctivities such as fishing, shipping, hydrocarbon harges, construction or military activities. Every of harbour porpoises strand on the coasts of the atries.				
	According to the EU's Habitat Directives and the Netherlands' Flora and Fauna Law, the European and Dutch governments are obliged to protect the harbour porpoise. For years the Dutch government did not take any action for the conservation of this species. There was no pressure from the Dutch public, as even today a great part is still unaware of the existence of harbour porpoises in the North Sea.					
	After years of lobbying by several NGO's, the Ministry of Economics, Agriculture & Innovation finally ordered scientists to work on a species conservation plan. This plan will be finished in the summer of 2011. To ensure a successful implementation of conservation measures by the government in 2011/2012, a greater awareness by the Dutch public is essential.					
	For this reason The North Sea Foundation in collaboration with Foundation SOS Dolfijn would like to organize a Harbour Porpoise Day for a broad public in the Netherlands in May 2012. In 2010 these two organizations already organised a similar event in the Dolphinarium in Harderwijk. This day was considered as a great success as many people visited the Dolphinarium that day (> 1000) and numerous local media (television, radio and news papers) paid attention to the harbour porpoise day.					
	In 2012 the two foundations would like to organize another public day about the harbour porpoise, this time a larger event with a greater outreach. The Public Harbour Porpoise day has linkages with the work of the North Sea Foundation, as one of its goals is to inform the public about the North Sea ecosystem, its threats and solutions. The North Sea Foundation is working on a Rapid					

	Alert System. A system in which government, scientists and NGO's work together in finding the causes of death of stranded harbour porpoises.
	SOS Dolfijn is taking care of harbour porpoises that stranded alive. After a period of intense rehabilitation, the harbour porpoise is released back into the North Sea. Educating the public about harbour porpoise and the anthropogenic threats they face in their natural environment is one of the main goals of the foundation. SOS Dolfijn is located in the Dolphinarium in Harderwijk.
Objectives	The main objective of this project is to increase public awareness in the Netherlands of the harbour porpoise and its conservation.
	Specific objectives
	- To reach a minimum of 20.000 people before and during the harbour porpoise day, through media and in the Dolphinarium
	<ul> <li>To educate people about biology, threats and conservation work of harbour porpoises</li> </ul>
	- To ensure a successful implementation of conservation measures by the government, with support from the Dutch public
Relevance to ASCOBANS	ASCOBANS adopted a new Conservation Plan for harbour porpoises in the North Sea in 2009. Raising awareness and outreach activities play an important role in the achievement of the conservation goals of the Netherlands. With organizing a Harbour Porpoise Day, we will be able to raise awareness amongst a broad public. This will positively affect our government with implementing conservation measures for harbour porpoises

Activities	Activity	Method	Personnel	Equipment	Location	Planning
	Organizing Harbour Porpoise Day in May 2012	Pre- meeting	Marchien, Jolanda	x	North Sea Foundation	October
		Meeting about details of the day + program	Marchien, Jolanda, Eligius	X	North Sea Foundation	January
		Facilities	Jolanda, Eligius	Location, catering, materials	Dolphinarium	February
		Internet	Marchien	Webpage with information + social media campaign	North Sea Foundation	February- April
		Invitations	Marchien Jolanda	Stationary	North Sea Foundation	March
		Preparation of program	Marchien, Jolanda,	x	Dolphinarium	March- April
		Volunteers	Jolanda	х	Dolphinarium	March
	Press strategy	Backgroun d articles in magazines	Marchien Jolanda	Articles about harbour porpoises	North Sea Foundation	October- December
		Contact with journalists for radio/tv/ne wspaper items	Marchien	Press release	North Sea Foundation	March- May
	Communic ation materials	Goodie	Marchien	Brochure/c ard Harbour Porpoise	North Sea Foundation	February
		Materials Harbour Porpoise Day	Marchien Jolanda	Banners, flags	Dolphinarium	February- March
	Evaluation	Meeting	Marchien, Jolanda, Eligius	x	North Sea Foundation	June
Outputs	- Harbour F	Porpoise D	ay (event)			
	- Webpage + social media campaign					
	<ul> <li>Articles about narbour porpoises in magazines / specialist journal</li> <li>Press release</li> </ul>					

	- Harbour Porpoise goodie (brochure with poster or postcard)					
	- Banners and flags					
	- Evaluation report					
Work Plan and	Month Activity Responsible					
Timetable	October 2011	Pre-meeting to discuss the organization of the Harbour Porpoise Day	North Sea Foundation / SOS Dolfijn Foundation			
	October - December	Articles in magazines and specialist journals	North Sea Foundation			
	January	Meeting about details of the day + program	North Sea Foundation			
	February	Arranging all facilities	SOS Dolfijn Foundation			
	February	Designing Harbour Porpoise goodie	North Sea Foundation			
	February- March	SOS Dolfijn Foundation /				
	February - April	Webpage + social media campaign	North Sea Foundation			
	March	Invitations	North Sea Foundation / SOS Dolfijn Foundation			
	March-April	Organizing specific parts of the program	North Sea Foundation / SOS Dolfijn Foundation			
	March	Organizing the assistance of volunteers	SOS Dolfijn Foundation			
	March-May	Press release + contact with journalists for tv/radio/newspaper items	North Sea Foundation			
	May Harbour Porpoise Day!		North Sea Foundation / SOS Dolfijn Foundation			
	June 2012	Evaluation + report	North Sea Foundation			
Project Personnel	North Sea Foundation					
	Marchien de Ruiter					
	Communications/PR North Sea Foundation					
	Project lead	der				
	m.deruiter@	<u>@noordzee.nl</u> / +31 (0)6 2182572	20			
	SOS Dolfij	n Foundation				
	Director S	us Domin				
	Eligius.Eve	raans@sosdomjn.ni				
	Jolanda Me	eerbeek				
	Head of re	habilitation centre SOS Dolfijr	1			
	Project member					
	Jolanda.Meerbeek@sosdolfijn.nl					

# **PROJECT BUDGET**

People/organizing		€/hour		Number	Subtotal	Sponsored
Projectmanager			85	64	5440	
Project members			50	40	2000	
Volunteers			0	40	0002	
Volunteers			U	40	Ū	
People/communication		€/hour		Number	Subtotal	Sponsored
Articles	Projectmanager		85	16	1360	
Press release	Projectmanager		85	16	1360	
Press release	Projectmanager		85	16		1360 North Sea Foundation
Social media	Project member		50	16	800	
Social media	Projectmanager		85	8		680 North Sea Foundation
Invitations	Project member		50	16	800	
Facilities		Costs		Number	Subtotal	Sponsored
Location			400	1		500 SOS Dolfijn
Catering			1250	1		1250 SOS Dolfijn
Materials (flags, banners, stands etc.)			300	1		300 SOS Dolfijn
Invitation/entry permit Dolphinarium			25	40	1000	
Invitation/entry permit Dolphinarium			25	10		250 North Sea Foundation
Campaign materials		Costs		Number	Subtotal	Sponsored
Wahaara ayaat			F00	1	F00	
Vvenpage event			500	L 2000	500	
Gauget			0.3	5000	1200	0
Gast speaker			0	ð		U

Sponsored	4340
TOTAL	14760