

Agenda Item 6.1

Project Funding through ASCOBANS  
Progress of Supported Projects

Document 6-05

**Project Report:  
Interest and feasibility of a web-  
accessed database for marine  
mammal strandings and necropsy  
data in the ASCOBANS region**

**Action Requested**

- Take note of the report

Submitted by

Secretariat / ZSL



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

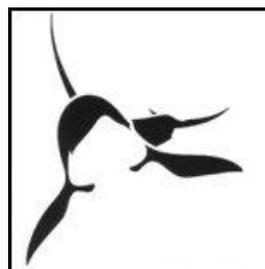




## **Interest and feasibility of a web-accessed database for marine mammal strandings and necropsy data in the ASCOBANS region**

**(Small project SSFA2010-2)**

**R. Deaville and P.D. Jepson (Zoological Society of London)**



## Introduction

Existing stranding networks throughout Europe monitor and investigate cetacean strandings around the coastlines of the countries in which they operate. Although data which they collect during the course of such investigations are routinely recorded and in some cases made available through reports or public release of information, no centralised European point of access currently exists for the recording and display of data on both strandings and any necropsies which have been carried out. Creation of a web-accessed database would allow a long standing objective of the Conservation and Management Plan of the Agreement to be met;

### *“3. Use of by-catches and strandings*

*Each Party shall endeavour to establish an efficient system for reporting and retrieving by-catches and stranded specimens and to carry out, in the framework of the studies mentioned above, full autopsies in order to collect tissues for further studies and to reveal possible causes of death and to document food composition. **The information collected shall be made available in an international database.**”*

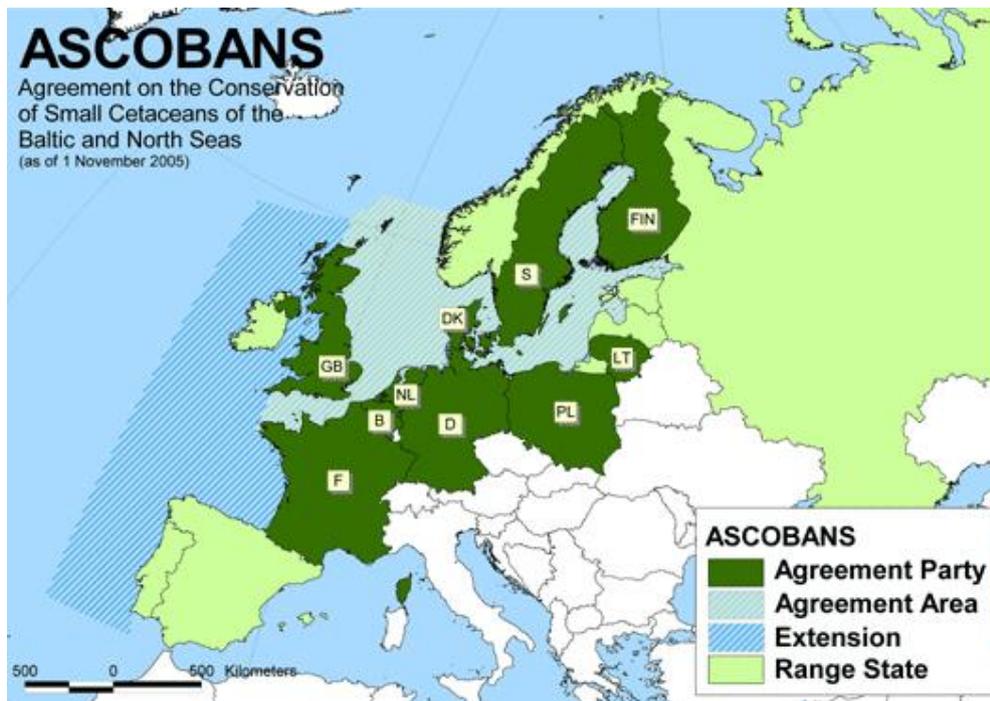
In addition, public display of data collected throughout the ASCOBANS region along with a qualitative overview of information on both strandings and research carried out by strandings networks (e.g. species found stranded, reporting arrangements, causes of death and conservation threats etc) will help facilitate another objective;

### *“5. Information and education*

*Information shall be provided to the general public in order to ensure support for the aims of the agreement in general and to facilitate the reporting of sightings and strandings in particular; and to fishermen in order to facilitate and promote the reporting of by-catches and the delivery of dead specimens to the extent required for research under the agreement.”*

Finally, the inception of such a system would be of potential benefit for scientists, policy makers and NGOs, as well as helping inform the wider public about the reasons why cetaceans may strand and the wider need for cetacean conservation.

In this project, we aimed to invite participants from stranding networks in the ASCOBANS region to attend a meeting on the creation of a common strandings dataset. At this meeting, strandings and necropsy data held by each network would be discussed, with a view to establishing potential common areas and current methods of data output. Stranding networks from both Agreement Party states and Range States would be invited to attend (**Figure 1**). The initial funding application indicated that the meeting would be held at and hosted by the Zoological Society of London (ZSL) in the UK sometime during September/October 2010. However, the AC meeting originally planned for April 2010, where funding applications would be considered for funding, was cancelled as a result of travel disruption following the eruption of the volcano Eyjafjallajökull in Iceland. Funding approval was given at the rescheduled AC meeting in October 2010, and a decision was then taken to hold the meeting at the forthcoming European Cetacean Society conference in Cadiz instead. Most potential collaborating partner networks would have had representatives at the conference, leading to a potential increase in awareness of and involvement with the feasibility study and also a potential reduction in costs.



**Figure 1** Agreement Parties and Range States

## Workshop summary

In advance of the workshop itself, a questionnaire was forwarded to representatives of a number of stranding networks (**Annex 1**), as part of an initial information gathering exercise. A summary of part of this data is given in **Table 1**. On Saturday 19<sup>th</sup> March, the workshop itself was held in Cadiz, prior to the 25<sup>th</sup> European Cetacean Society Conference. The aims of the workshop were to;

- establish common areas of data held by each network
- establish current methods of data archive and dissemination
- agree a defined list of fields for a potential centralised database
- agree a process and outline timetable for the production of the potential centralised database

In total, 53 attendees from eleven countries attended and presentations were given by representatives of nine stranding networks (see overleaf). A list of attendees and affiliations is given in **Annex 2**. The presentations themselves can also be found [here](#), using the password “ascobans”;

<http://ukstrandings.org/ecs-2011-strandings-database-workshop/>

**Table 1** Summary of selected information given in questionnaires circulated to stranding networks

Country	Network	Year started	Cetaceans	Other species	Stranding Numbers	Necropsies	Necropsy Numbers	Existing online database	Interest in contribution to database
Belgium	MARIN	1990	Yes	Yes	805+	Yes	805	Yes	Yes
Denmark	MN/FIMUS	1991	Yes	Yes	1429	Yes	105	No	Yes
France	CRMM	1970	Yes	Yes	11987	Yes	~3000 <sup>2</sup>	Yes	Yes
Galicia	CEMMA	1990	Yes	Yes	4800	Yes	N/A	No	Yes
Germany	FTZ	1990	Yes	Yes	3332	Yes	224+	No	Yes
Ireland	IWDG	1753	Yes	Yes	2186	Yes	N/A	Yes	Yes
Netherlands	Naturalis	1255	Yes	Yes	6070	Yes <sup>3</sup>	238+	Yes	Yes
Portugal	SPVS	2000	Yes	Yes	877	Yes	~600	Yes <sup>4</sup>	Possibly
UK	CSIP	1990	Yes	Yes	9894	Yes	2880	Yes	Yes

NB Data given to end of 2010

<sup>1</sup>- Atlantic and Channel coastline of France only

<sup>2</sup>- Subset of these conducted on strandings found on Atlantic and Channel coastline of France

<sup>3</sup>- Cetacean necropsies conducted by Utrecht University

<sup>4</sup>- Shortly to be released

## **12.30** Registration, introduction and welcome

### Presentations

**13.00** *The Cetacean Strandings Investigation Programme: collection, analysis and archival of strandings data in the UK since 1990*

Rob Deaville, CSIP, UK, [rob.deaville@ioz.ac.uk](mailto:rob.deaville@ioz.ac.uk)

**13.20** *Marine Animals Research and Intervention Network -MARIN-: collection, analysis and archival of strandings and sighting of marine mammals data in Belgium since 1990*

Thierry Jauniaux, MUMM, Belgium, [T.Jauniaux@ulg.ac.be](mailto:T.Jauniaux@ulg.ac.be)

**13.40** *The Dutch whale strandings database* [www.walvisstrandingen.nl](http://www.walvisstrandingen.nl)

Guido Keijl & Berry van der Hoorn, NCB Naturalis, Netherlands, [Guido.Keijl@ncbnaturalis.nl](mailto:Guido.Keijl@ncbnaturalis.nl)

**14.00** *Monitoring marine mammal strandings in Galicia*

Angela Llavona, CEMMA, Galicia, Spain, [allavonav@yahoo.es](mailto:allavonav@yahoo.es)

### **14.20** Lunch break

**15.20** *The French stranding network: 35 years of marine mammal stranding monitoring*

Helene Peltier, CRMM, France, [hpeltier@univ-lr.fr](mailto:hpeltier@univ-lr.fr)

**15.40** *Marine mammal database in Schleswig-Holstein, Germany*

Henrike Siebel, Forschungs- und Technologiezentrum Westküste, Germany  
[seibel@ftz-west.uni-kiel.de](mailto:seibel@ftz-west.uni-kiel.de)

**16.00** *The Danish Stranding Network - The contingency plan concerning strandings of marine mammals in Denmark*

Charlotte Bie Thøstesen, Fisheries and Maritime Museum, Denmark, [cbt@fimus.dk](mailto:cbt@fimus.dk)

**16.20** *Review of Irish Whale and Dolphin Group Cetacean Stranding Scheme*

Simon Berrow and Mick O'Connell, IWDG, Ireland, [strandings@iwdg.ie](mailto:strandings@iwdg.ie)

**16.40** *Monitoring marine mammal strandings in Mainland Portugal*

Jose Vingada, University of Minho and SPVS, Portugal, [jv@bio.uminho.pt](mailto:jv@bio.uminho.pt)

**17.00** Summary and discussion

## **Figure 2** Database workshop agenda

Following the presentations, a wide ranging discussion took place. Some of the following points were covered as part of this process;

- Who would the database be aimed at and who would be likely to use or access it?
- If aimed at multiple users, different levels of access could be set for each e.g. public, policy officials, cetacean scientists etc
- Data included in a putative database could cover the period 1990-present, as this is when many of the networks started in Europe in response to the PDV epizootic in 1988

- As well as cetacean data, seal data could also potentially be included (many stranding networks collect data on other species)
- Not all national stranding networks currently have an online system- four of the nine networks represented at the meeting didn't
- How often would data be updated? Some strandings and pathology data may need to be withheld while national reporting takes place e.g. in the UK, data is released into the public domain three months in arrears
- Not every strandings network conducts necropsies and it is likely that existing cause of death data may not be directly comparable between different networks and that cause of death data may take some time to include in such a system
- Funding options for setup/maintenance of a web-accessed database

Broad agreement was reached during the workshop that the following fields could potentially be used to populate a putative database.

- **Reference number**- stranding network unique identifier
- **Single/multiple event**- single stranding or multiple stranding (including mass strandings)
- **Species**- common and scientific
- **Sex**- M, F and U
- **Length** (cm) and **Length known** (Y/N)
- **Date found** (dd/mm/yy); **Year found**; and **Date accuracy**
- **Location**; **local** or **regional authority**; **Country**
- Spatial parameters (**latitude** and **longitude**)
- **Stranding type**- dead stranding, live stranding, entangled etc
- **Body condition code**- freshly dead (code 2a), slight decomposition (code 2b) etc
- **Sent for necropsy**- Y/N
- **Necropsy date**- dd/mm/yy
- **Frozen**- Y/N
- **Body condition at necropsy**- freshly dead (code 2a), slight decomposition (code 2b) etc
- **Age class**- adult, juvenile etc
- **Age**
- **Cause of death** and **cause of death category**
- **Samples available**- Y/N
- **Images available**- Y/N
- **Source organisation**
- **Spatial location confidence**

Final agreement on inclusion of these fields is dependent on the results of follow up discussion on the creation, structure and function of the database. It was proposed that this discussion could be promoted by the creation of working groups to discuss the following three topics;

- Strandings data/national projects
- Pathology/cause of death data
- Technical aspects of database creation

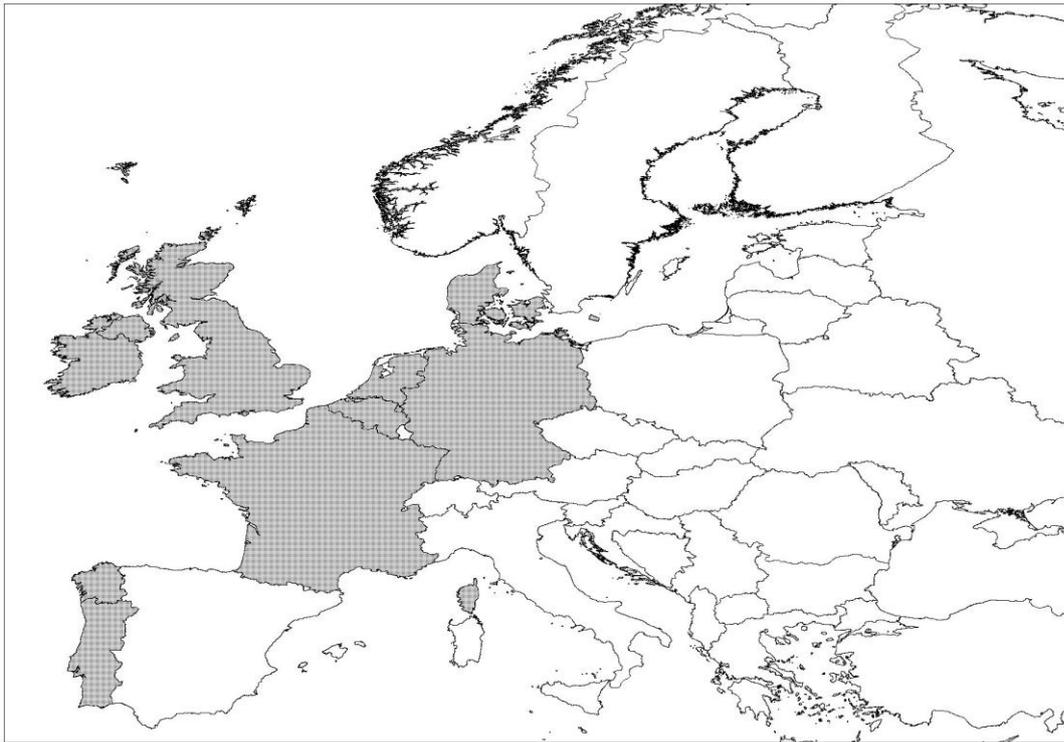
Finally, it was proposed by several attendees that the most appropriate way to proceed with the creation of a common online dataset, would be for selected data to be periodically uploaded by national networks in XML format to a webserver that can then be harvested and displayed through a central website (<http://en.wikipedia.org/wiki/XML> and [http://en.wikipedia.org/wiki/XML\\_database](http://en.wikipedia.org/wiki/XML_database)).

## Discussion

There was **near unanimous approval** amongst attending networks for the concept of a centralised web-accessed database, with caveats that the intellectual property rights of national networks and/or funding bodies to data need to be maintained and that existing arrangements are not affected e.g. where countries like France, Spain and Portugal may also contribute data to any ACCOBAMS strandings database/s. Over the course of the next year, it is the intention of the authors that further discussion will take place between potential partner networks, leading to the generation of a technical, fully costed proposal. At the moment, stranding networks that have expressed interest in contributing to such a system are largely from North Sea and Atlantic coast regions (**Figure 3**). It is hoped that as this project proceeds, networks from other regions (particularly those from the Baltic Sea and Scandinavia) may also wish to collaborate and contribute data.

In summary, an ASCOBANS web accessed database would act as a centralised repository for selected strandings data and data collected during necropsies by national stranding networks. Data would ideally be uploaded at periodic intervals to the portal by contributing networks and data display would take place through a portal that either mirrored the current ASCOBANS design or one that had a specifically designed appearance. Selected data would also be directly mapped through the front end interface via Google Maps capability. Different levels of access would be set, allowing different users to view and interrogate the data as appropriate. Putative fields have been identified and discussion over the next year will help determine field values etc. It was felt that an initially simple approach would be most appropriate, allowing the display of temporal and spatial data (i.e. what species stranded where and when), with cause of death and pathology data to follow. The system should ideally be expandable however, to allow future inclusion of other data as well as data from other networks.

Finally, the nine stranding networks which have thus far expressed an interest in collaborating on this project have collected data on at least 41380 cetacean strandings, of which over 7000 may have been necropsied. The production of such a significant combined dataset on strandings over a 20+ year period would enable us to investigate historical trans-boundary events and react more swiftly to potential events in the future. It would also help educate and inform the public about the reasons why cetaceans strand and enable us to address a wide range of issues that may impact on efforts to promote the long-term conservation of these charismatic marine species.



**Figure 3** Stranding networks willing to contribute or discuss provision of data to a common dataset

**Belgium-** Marine Animals Research and Intervention Network  
([www.mumm.ac.be/EN/Management/Nature/strandings.php](http://www.mumm.ac.be/EN/Management/Nature/strandings.php))

**Denmark-** Miljøministeriet Naturstyrelsen/FIMUS  
([www.naturstyrelsen.dk](http://www.naturstyrelsen.dk))

**France-** Centre de Recherche sur les Mammifères Marins  
(<http://crmm.univ-lr.fr/index.php/en/home>)

**Galicia-** Coordinadora para o Estudio dos Mamíferos Mariños  
([www.cemma.org](http://www.cemma.org))

**Germany-** Schleswig-Holstein regional network  
([www.uni-kiel.de/ftzwest/index-e.shtml](http://www.uni-kiel.de/ftzwest/index-e.shtml))

**Ireland-** Irish Whale and Dolphin Group  
([www.iwdg.ie](http://www.iwdg.ie))

**Netherlands-** Naturalis and others, including Utrecht University  
([www.walvisstrandingen.nl/](http://www.walvisstrandingen.nl/))

**Portugal-** Sociedade Portuguesa de Vida Selvagem  
([www.socpvs.org/](http://www.socpvs.org/))

**UK-** Cetacean Strandings Investigation Programme  
([www.ukstrandings.org](http://www.ukstrandings.org))

## **Annex 1 Questionnaire circulated to stranding networks**

### **Interest and feasibility of a web-accessed database for marine mammal strandings and necropsy data in the ASCOBANS region**

- What is the name of your network? Is it a national or regional network and is it recognized by your government? Please give details of a main point of contact for your network (email and URL of network if available)
- Is your network funded or voluntary in nature- if funded, who is/are the funder/s?
- What is the spatial extent/geographical range of the data you collect?
- What is the temporal range of the data you hold?
- Do you collect data on; cetaceans; seals, other species? How many species in total?
- Do you collect strandings data? What data are collected?
- Do you collect data on by-caught animals? Are by-caught animals reported by fishermen? What data are collected?
- Do you conduct and collect necropsy data? If so, which protocol do you use and what data are collected?
- Do you collect and archive samples for tissue banking and exchange? If so, how are samples made available to researchers and how are data on samples, results etc stored?
- Do you also collect and hold data on sightings? If so is it integrated with the strandings dataset? What data are collected?
- Who owns the data or has intellectual property rights?
- Are you reporting data to national authorities, regional agreements etc? If yes which ones (e.g. ASCOBANS, ACCOBAMS, IWC)
- Is the data publicly available- if a proportion of the data you hold is publicly available, what proportion?
- If your data is publicly available, how often is it released into the public domain?
- Is your data available through a web accessed database? If so, what is the domain name?
- Do you store your data on a 'local' database- if so, what software package is used to store it (e.g. Access, Excel etc)?
- How much data do you hold (e.g. how many strandings, how many necropsies etc)?
- How are strandings reported? Are you able to control for effort in the collection of strandings data? How is data quality controlled?
- Are you potentially willing to contribute your data to a proposed ASCOBANS region database?

Please add any notes or additional information below

## **Annex2 Attendees at ECS Workshop Saturday 19<sup>th</sup> March 2011**

<b>Attendee</b>	<b>Affiliation</b>	<b>Country</b>
Faye Archell	British Divers Marine Life Rescue	UK
James Barnett	Animal Health and Veterinary Laboratories Agency	UK
Lineke Begeman	Utrecht University	Netherlands
Harald Benke	Deutsches Meeresmuseum	Germany
Charlotte Bie Thøstesen	Fisheries and Maritime Museum	Denmark
Simon Berrow	Irish Whale and Dolphin Group	Ireland
Andrew Brownlow	UK Cetacean Strandings Investigation Programme	UK
Gavin Bruce	British Divers Marine Life Rescue	UK
Florence Caurant	Centre de Recherche sur les Mammifères Marins	France
Joop Coolen	North Sea Foundation	Netherlands
Caroline Curtis	Cornwall Wildlife Trust Marine Strandings Network	UK
Nick Davison	Animal Health and Veterinary Laboratories Agency	UK
Rob Deaville	UK Cetacean Strandings Investigation Programme	UK
Marchien de Ruiter	North Sea Foundation	Netherlands
Eligius Everaarts	SOS Dolfijn	Netherlands
Marisa Ferreira	Sociedade Portuguesa de Vida Selvagem	Portugal
Sharon Gisby	British Divers Marine Life Rescue	UK
Marie-Christine Grillo	ACCOBAMS	N/A
Jan Haelters	Management Unit of the North Sea Mathematical Models	Belgium
Sjouke Heimstra	Utrecht University	Netherlands
Kate Hockley	Cornwall Wildlife Trust Marine Strandings Network	UK
Lonneke IJsseldijk	Irish Whale and Dolphin Group	Ireland
Thierry Jauniaux	University of Liege	Belgium
Paul Jepson	UK Cetacean Strandings Investigation Programme	UK
Guido Keijl	Naturalis	Netherlands
Alan Knight	British Divers Marine Life Rescue	UK
Angela Llavona	Coordinadora para o Estudo dos Mamíferos Mariños	Spain
Jan Loveridge	Cornwall Wildlife Trust Marine Strandings Network	UK
Jeff Loveridge	Cornwall Wildlife Trust Marine Strandings Network	UK
Ana Marçalo	Sociedade Portuguesa de Vida Selvagem	Portugal
Stephen Marsh	British Divers Marine Life Rescue	UK
Yvonne Miles	Scanning Ocean Sectors	UK
Maria Morell	Laboratori d'Aplicacions Bioacústiques	Spain
Lidia Nicoku	Sociedade Portuguesa de Vida Selvagem	Portugal
Alessandra Pautasso	Istituto Zooprofilattico Sperimentale del Piemonte	Italy
Iwona Pawliczka	Hel Marine Station	Poland
Helene Peltier	Centre de Recherche sur les Mammifères Marins	France
Rod Penrose	UK Cetacean Strandings Investigation Programme	UK
Matt Perkins	UK Cetacean Strandings Investigation Programme	UK
Graham Pierce	Aberdeen University	UK/Spain
Eva Sierra Pulpillo	Universidad de Las Palmas de Gran Canaria	Spain- Canaries
Victor Rojas	N/A	N/A
Jorge Santos	Sociedade Portuguesa de Vida Selvagem	Portugal
Henrike Siebel	Forschungs- und Technologiezentrum Westküste	Germany
Nick Tregenza	Chelonia	UK
Cristiana Tittarelli	Istituto Zooprofilattico Sperimentale del Piemonte	Italy
Berry van der Hoorn	Naturalis	Netherlands
José Vingada	Sociedade Portuguesa de Vida Selvagem	Portugal
Ursula Verfuß	Deutsches Meeresmuseum	Germany
Lidewij Wiersma	Utrecht University	Netherlands
Andrew Wright	NERI/Aarhus University	Denmark
Zoe Woodward	Cornwall College Newquay	UK
Betty Zocholl	N/A	Germany

### **Annex 3 Small project “SSFA2010-2” Financial Report**

The original application approved by the Secretariat budgeted for **€8500**;

<b>Item</b>	<b>Cost</b>
Meeting between networks/stakeholders <sup>1</sup>	€8000
Report/costed proposal production <sup>2</sup>	€500
<b>Total</b>	<b>€8500</b>

<sup>1</sup>- Contribution towards the costs of networks attendance at meeting

<sup>2</sup>- Preparation of a report to the ASCOBANS Secretariat on the outcome of inter-network discussions

Only two invoices for €500 each were received from national stranding network representatives (Ireland and Denmark), other national representatives chose to fund attendance from their own budgets. A decision was therefore taken to reduce the total amount claimed for this project to **€1500**, amendments to budgets agreed with the ASCOBANS Secretariat in January 2012.

#### **Revised project costs**

Attendance at ECS workshop €1000

Workshop organisation and report preparation (ZSL) €500

#### **Invoices**

1<sup>st</sup> instalment (75% of project total, invoiced January 2012) €1125

2<sup>nd</sup> instalment (25% of project total, pending successful production and sign off of project report) €375