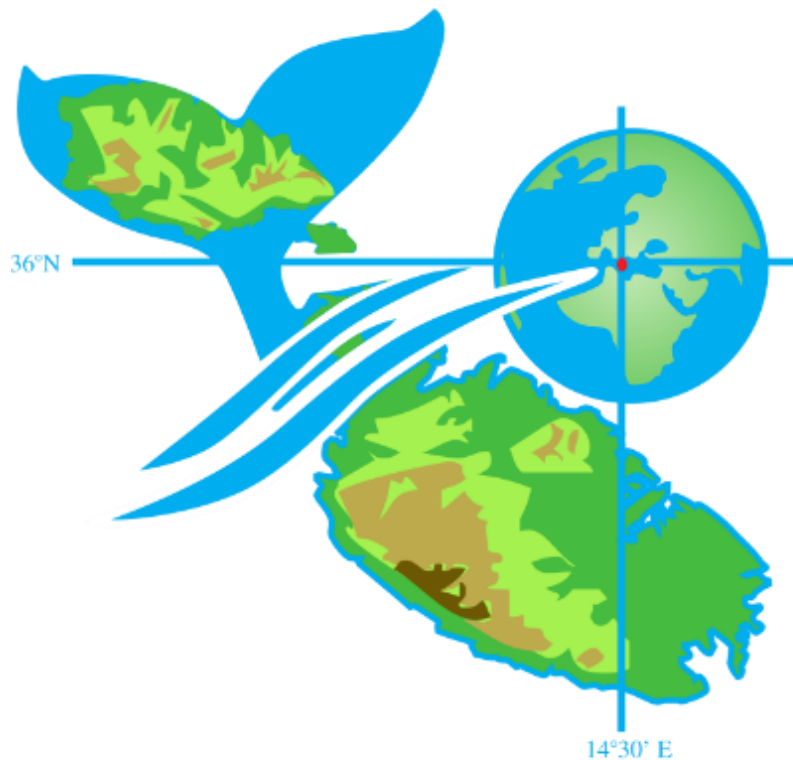


# MARINE MAMMAL CONSERVATION FROM LOCAL TO GLOBAL



## 29<sup>TH</sup> CONFERENCE OF THE EUROPEAN CETACEAN SOCIETY

21<sup>st</sup> to 22<sup>nd</sup> March, 2015  
Intercontinental Hotel, St Julian's Bay, MALTA

### WORKSHOPS



UNIVERSITY OF MALTA  
L-Università ta' Malta

VENUE – INTERCONTINENTAL MALTA HOTEL, ST JULIANS



📍 Conference Hall, Cettina De Cesare (CDC), is in hotel.

SATURDAY 21<sup>ST</sup> MARCH 2015

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WORKSHOPS

**New mitigation methods and evolving acoustic exposure guidelines**

FULL DAY

Andrew Wright & Patrick Lyne

**Communicating marine mammal science to students and the general public**

FULL DAY

Volker Smit

**ECS 2015 student workshop: Careers beyond academics**

FULL DAY

Inger van den Bosch

**Strengthening the cooperation for a better cetacean conservation in the ACCOBAMS area: Working Together with Common Tools**

FULL DAY

Maylis Salivas

**ECS Rescue Workshop**

PM HALF DAY

Mark Simmonds

NOTE: EXACT LOCATIONS ARE GIVEN ON ARRIVAL



SUNDAY 22<sup>ND</sup> MARCH 2015

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WORKSHOPS

**Marine mammals pathology: update of the necropsy protocol on dissection techniques and tissue sampling**

FULL DAY

Thierry Jauniaux & Lonneke Ijsseldijk

**Developing professional ethics guidelines for European cetacean researchers**

AM HALF DAY

ECM Parsons

**Current developments in North Atlantic humpback whale research**

AM HALF DAY

Frederick Wenzel

**Procedures for the analysis of European marine mammal datasets from standardised transect surveys aboard dedicated research platforms**

PM HALF DAY

Rachel Davies

**SAMBAH - Private Meeting**

FULL DAY

Julia Carlström

NOTE: EXACT LOCATIONS ARE GIVEN ON ARRIVAL

## New mitigation methods and evolving acoustic exposure guidelines

New Zealand Department of Conservation in association with the MMOA.

21 March 2015

### Workshop Schedule and Abstract Book

#### Noise measurement

09:15 – 09:40 *Peter Ward, Kongsberg Maritime Ltd*

PAM: Methods and Platforms for Underwater Noise Sensing

#### Multi-beam

09:40 – 10:05 *Paul Jepson, Zoological Society of London*

Final report of the Independent Scientific Review Panel investigating potential contributing factors to a 2008 mass stranding of melon-headed whales (*Peponocephala electra*) in Antsohiy, Madagascar

10:05 – 10:30 *Gordon Hastie, SMRU, St Andrews University*

The use of multi-beam in marine mammal research and mitigation; pitfalls and possibilities

----- Break 10:30-10:50 -----

#### Thermal Imaging

10:50 – 11:15 *Daniel Zitterbart, Alfred-Wegener Institute*

Exploring the Thermal limits of Automatic Whale detection

#### Acoustic deterrents

11:15 – 11:40 *Jonathan Gordon, SMRU, St. Andrews University*

Aversive Sound Mitigation to Reduce the Risk of Damage to Marine Mammals

#### Passive Acoustic Monitoring

11:40 – 12:05 *Phil Johnston, Seiche Instruments*

Remote Passive Acoustic Monitoring (RPAM) for Mitigation

12:05 – 12:30 *Doug Gillespie, SMRU, St. Andrews University*

Signal processing and analysis: detection, classification, localization and reliability

----- Lunch Break -----

#### Passive Acoustic Monitoring Continued.....

13:30 – 13:55 *Christophe L'Her, Sercel*

QuietSea new PAM system.

13:55 – 14:20 *Morten Svendsen, Western Geco*

Whalewatcher: new PAM system

#### Acoustic Exposure Guidelines

14:20 – 14:45 *Karen Hall, JNCC*

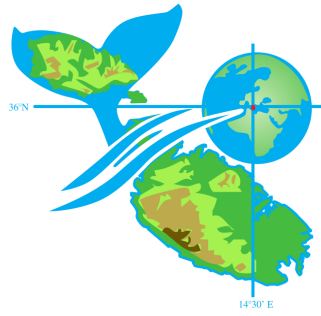
Analysis of MMO data and soft starts.

14:45 – 15:10 *Andrew Wright, George Mason University*

Effectiveness of current guidelines.

----- Break & Poster Session 15:10-15:40 -----

15:40 – 17:00 Open discussion on guidelines effectiveness and how they might be improved based on information presented.



## 29<sup>th</sup> European Cetacean Society Conference

3<sup>rd</sup> Workshop focusing on Education:



### **Communicating marine mammal science to students & the general public**

Marine Conservation Education  
and Awareness in Europe

21<sup>st</sup> of March 2015

InterContinental, St. Julians, Malta

workshop sponsored by

**The Ministry of Education & Employment  
MALTA**

## **Summary**

After the workshops at the ECS conferences in 2013 and 2014, the European Cetacean Society scientists and educators, wishing to share their educational and outreach experiences, aim at communicating marine mammal science to schools' teachers/educators that work in either formal or informal education. The upcoming workshop allows scientists and experienced educators to share their acquired skills toward improving educational programs in support of school curricula and pedagogical outreach materials, such as books, videos, kits, activities and exhibitions. From the last workshop in 2014 it was found that many educators gained further knowledge on how better to present complex marine science topics in more attractive and feasible ways in schools. This workshop in Malta will give teachers and educators the opportunity to share their experiences and queries with the invited speakers working in marine and conservation science research and teaching.

This workshop is therefore especially relevant to educators and teachers but is also open to researchers, students and persons working in the media and in public awareness.

### **The aims of the workshop are to:**

- share information about sources related to marine science education,
- exchange ideas and knowledge on the latest science teaching tools,
- exchange experience in addressing students and the media,
- foster general networking with all stakeholders, including students and the public,
- exchange experiences on outreach work and education,
- support ECS and teachers across Europe to address educational questions relating to the conservation of marine species, including marine mammals.

<b>Schedule</b>	Educational Workshop - 29 <sup>th</sup> ECS conference 21 <sup>st</sup> March 2015 – ICM - MALTA
8:30 – 9:00	<b>Registration</b> (information visit the ECS-Webpage-Conference Info)
9:00 – 9:15	<b>Introduction</b> *short introduction round* (depending on group size) *results from the 1 <sup>st</sup> and 2 <sup>nd</sup> workshop in Setúbal and Liège *objectives of the 3rd workshop Volker Smit - M.Sc., & full-time high school teacher, Germany
9:15 – 9:35	<b>Cetaceans as Flagship species in marine biological conservation: the Mediterranean Experience</b> Adriana Vella, Ph.D., Malta, CBRG & Senior Lecturer, UoM
9:35 - 9:55	<b>Why Science Matters?</b> Nicola Hodgins, Head of Science and Research, United Kingdom, WDC ( <a href="http://uk.whales.org/">http://uk.whales.org/</a> )
9:55 - 10:15	<b>Participatory science as a way to sensitize the general public</b> Joanna Prime, France, <a href="http://pixwhale-eng.jimdo.com/">http://pixwhale-eng.jimdo.com/</a>
10:15-10:30	Coffee Break
10:30 – 10:50	<b>Research and conservation of Indo-Pacific bottlenose dolphins (<i>Tursiops aduncus</i>) around Hurghada, Egypt – an educational perspective</b> Angela Ziltener, M.Sc., Dolphin Watch Alliance, Switzerland
10:50 – 11:10	<b>"CSI of the Sea - why do strandings occur and what can we learn from them?"</b> Rob Deaville, Project Manager, UK Cetacean Strandings Investigation Programme
11:10 - 11:30	<b>Different levels of outreach by the long-term project „MEER La Gomera“</b> Volker Smit, M.Sc. Germany (M.E.E.R. e.V.- Mammals Encounter-Education-Research, <a href="http://www.m-e-e-r.org">http://www.m-e-e-r.org</a> )
11.30 - 11.50	VIEWING of Documentaries and Educational Materials
11:50 – 12:05	<b>The importance of awareness for conservation: 25 years experience in 'Ischia Dolphin Project' study expeditions</b> Barbara Mussi & Daniela S. Pace, Ph.D., OCEANOMARE DELPHIS Onlus, Via G. Marinuzzi 74 – 00124 Rome, Italy & Dep. of Environmental Biology, 'Sapienza' University of Rome – Italy.
12:05 – 12:25	<b>Data management and two way exchange of information for marine conservation science and awareness</b> Joseph Vella, Ph.D., Malta, BICREF ( <a href="http://www.bicref.org/">http://www.bicref.org/</a> ) & Lecturer, CIS-UoM
12:25-12:30	Proposing and planning for the afternoon session
12:30-14:00	Lunch break
14:00-14:30	Brief summary from the morning session Short introduction round* (if not done in the morning) Formation of working groups depending on the participants, their field(s) of interest and total numbers of participants
14:30-15:30	Working groups, session 1
15:30-15:45	Coffee Break
15:45-16:30	Working groups, session 2
16:30-17:00	<b>Presentation of group results and future outlook</b>



## **ECS student workshop schedule, Saturday March 21<sup>st</sup> 10:00-16:00:**

We will start at 10:00 at the Intercontinental Hotel Malta (St. George Bay, STJ 3310). When you enter the hotel go straight down the stairs and there will be a sign to the workshop room. Please be on time!

10:00 Welcome by Inger van den Bosch - ECS student representative

10:10 Heidi Frisch - ASCOBANS

*Heidi will introduce you to the international agreements and protocols that were brought to life to protect our marine environment and our marine mammals. She will tell about different job opportunities throughout Europe working with or on these agreements.*

10:40 Mark Simmonds - Humane Society International (and ECS Council Member)

*Mark will introduce you to the work of different NGOs and the various job possibilities these organizations provide.*

11:10 Short break

11:20 Kerry Froud - Hebridean Whale and Dolphin Trust

*Kerry we speak about job opportunities in public awareness, education and the role social media editors in marine mammal conservation.*

11:50 Caro Hoeschle - BioConsult SH

*Caro will speak about the role of consulting agencies in the monitoring of anthropogenic effects on marine mammals and how this knowledge is used in marine spatial planning and what types of jobs this sector provides.*

12: 20 Morning session rap-up

The morning session will be over around 12:30. You will have an hour off then to have some lunch (at your own expense) in the neighborhood.

We will all meet back at the Intercontinental at 13:30 for the afternoon sessions. Once again be on time! Two different workshop rooms will be available.

13:30-15:30 Session A on R *will be provided by Conor Ryan and Tilen Genov. If you have signed up for this session they will provide you with more info and preparation work soon.*

13:30-15:30 Session B, the conservation case *will be led by me (student rep). More info on this will follow on the day of the workshop. Participants of session B will be working in teams of 2 and will have to give a one minute pitch at the end of the day in front of the other workshop participants. No preparation or specific knowledge is needed for this session. You are allowed to bring a laptop to look up things but it is not necessarily needed.*

At 15:30 everybody will come back together to the main workshop room:

15:30 Case study pitches by the students

15:50 Workshop rap up

16:00 Workshop finished

A summary of the workshop will be made and presented on Wednesday during the conference.

Wifi will be available at the venue. The complimentary wifi offered is accessible in all meeting rooms. The wifi provided is a shared bandwidth for all hotel guests and users.



**STRENGTHENING THE COOPERATION FOR A BETTER CETACEAN CONSERVATION IN THE ACCOBAMS  
AREA: WORKING TOGETHER WITH COMMON TOOLS**

**ECS Workshop – Saturday 21<sup>st</sup> March 2015 - Malta**

**ORGANIZERS:** ACCOBAMS Secretariat (Florence DESCROIX COMANDUCCI, Camille MONTIGLIO and Maylis SALIVAS), GIS3M (Hélène LABACH), WWF France (Denis ODY, Aurelie TASCOTTI) and Acquario di Genova (Guido GNONE)

**EXPECTED NUMBER OF PARTICIPANTS:** 40

All interested participants are invited to contact Maylis SALIVAS by email (msalivas@accobams.net).

**PRICE:** 25€/ participant (full day)  
Or 15€ half day

**OBJECTIVE: Strengthening the Cooperation in the ACCOBAMS Area**

This workshop aims at facilitating the information data flow and the dynamic exchange of knowledge and experiences between all experts involved in cetacean conservation in the Mediterranean and Black Seas (scientists, NGOs, students ...).

**The final objective of the workshop is the implementation and the use of common and relevant information/communication tools for the conservation of cetaceans in the ACCOBAMS area.**

**AGENDA**

Morning Session

**8:45** Welcome of participants

**9:15** Presentation and launch of the ACCOBAMS communication database for information exchange - *Maylis SALIVAS*

This initiative came from a real need expressed by ACCOBAMS Parties during the regional workshops on the 'ACCOBAMS Strategy' in 2012. In this context, and after consultation with the ACCOBAMS Scientific Committee and the ACCOBAMS Partners, it was decided to propose a dynamic internet tool allowing:

- (i) the consultation of studies and activities (anyone can ask to add his/her own contribution),
- (ii) the concrete exchanges of information through a discussions' forum, e.g., a blog.

All topics about the conservation of cetaceans can be addressed (research, threats, stranding, etc.). This tool aims at facilitating collaborations between all actors in cetacean conservation, especially between experts from North Countries and experts from Southern Mediterranean Countries, but also between experts within a same sub-region.

**9:45** Launch of the network NetCCoBAMS

With this workshop, we would like to launch the **first network in cetology for the ACCOBAMS area** (Mediterranean, Black Sea and Atlantic adjacent area): the "**NetCCoBAMS**" initiative.

Organizations and experts will be invited to provide advices and guidance on this initiative and to contribute to the discussions.



Two coordinators will be appointed to work in close collaboration on this issue with ACCOBAMS / GIS3M and WWF.

- Presentation of NetCCoBAMS - *Maylis SALIVAS and Aurélie TASCOTTI*
- Discussions

**10:45** Coffee break

**11:00** Feedback from ACCOBAMS Partners and other relevant organizations- *Camille MONTIGLIO - all ACCOBAMS Partners and relevant organizations*

ACCOBAMS Partners and other relevant organizations will be invited to express their views with emphasis on collaboration/communication within the ACCOBAMS area and contribute to the discussion.

**12:30** Lunch – snacks will be provided

#### Afternoon session

**14:00** Training to the use of Intercet – *Guido GNOME*

**Material needed:** participant should come with their own computer. An internet access will be needed.

Intercet is a photo ID Web-GIS application thought to support aggregation, visualization and integrated analysis of data coming from various institutions engaged in cetacean research. About 100 potential data contributors at Mediterranean level were identified during the last ACCOBAMS Scientific Committee.

A training of different experts involved in the cetacean conservation, on the Intercet use, is the first step of a sustainable implementation of this important tool that promotes data sharing on a common basis.

(More information on this tool is available: <http://www.intercet.it/>)

# *ECS Rescue Workshop 2015, March 21<sup>st</sup>, 2015*

*The workshop will start at 13.30pm*

## **Agenda**

*Welcome and workshop arrangements: Mark Simmonds*

1. **David Mattila**, Convener, Global entanglement response network Secretariat, International Whaling Commission:

## **Whale entanglement and disentanglement - a global overview.**

*(This will include consideration of the latest best practice, misconceptions about rescue, causes and remedies of entanglement and an explanation of how training can be requested.)*

2. **Brian Sharp**, Emergency Relief Officer, Stranding Coordinator International Fund for Animal Welfare:

## **A comparison of single versus mass cetacean rescues.**

3. **Stephen Marsh/Alan Knight OBE** – British Divers Marine Life Rescue:

### **3.1 New method of catching seals in nuclear power stations.**

### **3.2. Recent efforts to stop the mass stranding of Pilot whales in Essex – herding using boats.**

*Coffee Break/Afternoon Tea*

4. **Brian Sharp**, IFAW:

## **‘Seal flushing’ – the effects of disturbance by recreational and wildlife-watching vessels.**

5. **Sandro Mazzariol** – Cetacean Strandings Emergency Response Team

## **Results of the 2014 PELAGOS/ACCOBAMS workshop concerning live strandings.**

6. **Tilen Genov** – Morigenos - Slovenian Marine Mammal Society

## **Prolonged partial entanglement of a bottlenose dolphin calf in fishing gear.**

7. **Mark Simmonds OBE** - Senior Marine Scientist, Humane Society International:

## **The development of improved rescue collaboration across Europe.**

8. Discussion and other matters, including updates on work on seal disentanglement and euthanasia approaches.

*This workshop is sponsored by Humane Society International*



## **MARINE MAMMALS PATHOLOGY: UPDATE OF THE NECROPSY PROTOCOL ON DISSECTION TECHNIQUES AND TISSUE SAMPLING**

Place and date: ECS conference 2015, Intercontinental Hotel, 22nd March 2015

Workshop organisers contact: Thierry Jauniaux<t.jauniaux(at)ulg.ac.be> ; Lonneke IJsseldijk<l.l.ijsseldijk(at)uu.nl> and others.

AIM: The protocol used during necropsies of (small) cetaceans is the tissue sampling and necropsy protocol written in 1991 by Thijs Kuiken and Manuel Garcia Hartmann. Increasing knowledge and experiences on this topic makes it necessary to update the protocol including also considerations for pinnipeds and large cetaceans, together with international experts of this field of research.

To increase knowledge on distribution and population biology, and to identify main lesions and threats of marine mammals, scientists started to record information on stranded carcasses many years ago. Pathological examination is an important part of this, as diseases play a role in population dynamics. Stranding and mortality data can be used as an indicator for populations. Marine mammals are protected in many intergovernmental organisations and agreements which encourage using stranding and mortality patterns for conservation measures. Such species are considered as bio-indicator for toxicology. In addition, emerging and potentially zoonotic pathogens are frequently isolated and identified. Then, systematic necropsies using a similar protocol are essential to compare data at the European level.

Post-mortem investigation on small cetaceans are conducted according to the protocol of Kuiken & Hartmann composed in 1991. In 1994, an extra section was added dedicated to external features and interpretation of these. Cetaceans are frequently reported suffering from all kinds of external trauma. It is vital to understand the causes of mutilations and mortality, including those which are human-related. In recent years, we gained more experience and knowledge in tracing the causes of these mutilations, and new causes (i.e. predator attacks) came to light. The workshop will also focus on this interaction between marine mammals (e.g. grey seals and bottlenose dolphins attacks on other marine mammals). The idea is to discuss the different evidences, share pictures for the identification of lesions association with such attacks, to prepare a field protocol for collecting pictures and samples, to compare methodology of investigations, and to identify "hot spots" and other common observations.

The necropsy protocol needs to be re-evaluated and needs to be updated according to today's knowledge and also include considerations for large cetaceans and pinnipeds. The goal of this workshop is to bring together experts in port-mortem research on marine mammals to share their knowledge and preliminary results. A special issue of the European Cetacean Society Newsletter will be proposed as a publication similar to "Marine Mammals Ashore; a field guide for stranding", (Geraci and Lounsbury, second edition, 2002), including more specifically different European aspects (law, species, stranding networks,...) with the prospective to improve the use of post mortem data related with international European agreements priorities.

The organization of the workshop is supported by ASCOBANS. There are limited places available, so please send an e-mail to Lonneke IJsseldijk ([L.L.ijsseldijk@uu.nl](mailto:L.L.ijsseldijk@uu.nl)) to register. The day fee for participants, including coffee and tea breaks, is 25 euros and should be paid in cash on site.

**Program outline: 22<sup>nd</sup> March 2015, full day workshop**

- 9:00** Registration – **Lonneke IJsseldijk** and **Heidrun Frisch**
- 9:30** Start of the workshop
- 9:30** General introduction and participants' round table – **Thierry Jauniaux**
- Stranding networks in ASCOBANS area and ACCOBAM area
- 10:00** Small cetaceans protocol by **Thierry Jauniaux**
- 10:20** Seal necropsy, sampling and findings by **Ursula Siebert**
- 10:40** Large cetacean necropsy, sampling and findings by **Sandro Mazzariol**
- 11:00** Coffee break
- 11:30** Mass strandings by **Andrew Brownlow & Sandro Mazzariol**
- 11:50** Sound related mortalities by **Paul Jepson**
- 12:10** Sound related techniques by **Maria Morrell**
- 12:30** Lunch break
- 14:00** Aggressive behaviour of grey seals on porpoises by **Lonneke IJsseldijk**
- 14:20** Aggressive behaviour of grey seals on other seals by **Dave Thompson & Abbo van Neer**
- 14:40** Aggressive behaviour of dolphins on porpoises by **Rob Deaville**
- 15:00** Coffee break
- 15:15** Bycatch cases – discussion of case reports from different areas
- 16:15** Round table

<b>Name of Organiser:</b>	E.C.M. Parsons
Institution:	Department of Environmental Science & Policy, George Mason University, Fairfax, Virginia 22030, USA
Contact e-mail:	ecm-parsons@earthlink.net

<b>Workshop Title:</b>	<b>Developing professional ethics guidelines for European cetacean researchers</b>
Aim:	See below

Summary of Proposal (max 300 words and indicate expected output):	
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	<p>Many professional societies have developed professional ethical guidelines, such as the Society for Conservation Biology, the Society for Wetland Scientists and recently the Society for Marine Mammalogy. However, situations have arisen in the European cetacean research field that are unique to the region and field; for example, issues affected by European national laws, customs or traditions. This workshop aims to produce a specific set of ethical guidelines that deals with, and provides professional practice advice and guidance for, European scientists in the cetacean research field. These guidelines would reference:</p> <ul style="list-style-type: none"> <li>• Research conduct</li> <li>• The intersect with politics and policy</li> <li>• Dealing with the media</li> <li>• Publication ethics</li> <li>• Working in other (developing) countries</li> <li>• Respecting indigenous cultures</li> <li>• Fund-raising and ethics</li> <li>• Competition and bullying</li> <li>• Equality issues (gender, sexual orientation and minorities)</li> <li>• Inappropriate behavior (e.g., sexual harassment )</li> <li>• Environmental impact of research</li> <li>• Animal welfare</li> </ul> <p>The workshop will start with a short introduction to the field of professional ethics, with examples of appropriate literature and hypothetical case studies. The workshop will then split into focus groups to discuss specific issues and ethical concerns, followed by one or more discussion sessions.</p> <p><b>Proposed output:</b> A set of proposed guidelines and short report for the ECS council</p>
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# Current Developments with E. No. Atl. Humpbacks

PRE ECS CONFERENCE WORKSHOP

**Sunday, March 22, 2015 – 08:00-12:00**

AT THE INTERCONTINENTAL, St. Julians, MALTA

TIME **Author & Title**

8:00 **Workshop Introduction - Wenzel**

**POSTERS** Fernald et al.: *History of the North Atlantic Humpback Whale Catalogue (NNHWC)*  
Ryan et al.: *Long-term acoustic monitoring of humpback whales in the Cape Verde Islands: a pilot study*

**ORALS** **Tropics**

8:00 Ryan et al.  
Long term studies of Cape Verde Island humpbacks

8:15 Ward, N.  
Sister Sanctuary Program in the Caribbean

8:30 Gandilhon, N.  
Humpback breeding areas of French West Indies

**Middle North Atlantic**

8:45 Marilia Olio et al.  
A three year study of humpback whale (*Megaptera novaeangliae*) occurrence in Faial/Pico islands of the Azores and its relation to satellite derived surface biophysical products.

9:00 Berrow et al.  
Summary of the Humpback whale research in Irish waters

**Iceland/Norway**

9:15 Nils Oien  
Norway-Status report on Megaptera

9:30 Broms, F. et al.  
Challenges/Discoveries with the Northern Norway Humpback Whale Catalog

9:45 Bertulli, C.  
Survival and abundance of humpback whales from Iceland.



10:00  
-10:15

Break

10:15 Rasmussen M. et al.  
Deployment of acoustic, behavioral and camera tags on humpback whales  
in Skjálfandi Bay, Northeast Iceland

10:30 Vikingsson et al.  
"Distribution, abundance and migration of humpback whales off Iceland"

10:45 Robbins, J. et al.  
"Epigenetic aging in the North Atlantic"

11:00 Stevick et al.  
"East is east and west is west? Summary of No. Atlantic  
ocean-scale movement patterns."

11:15 Palsboll et al.  
The genetics perspective.

11:30 Open - Questions/Answers

What are future research questions and data needs?

Closing statements

## Developing analytical protocols to assess trends in cetacean populations from structured surveillance data collected on ferries



Sunday March 22nd, 14:00-18:00, Intercontinental Malta Hotel, St. Julians, Malta

### Programme:

13:30 – Room open and Registration

#### **Session1: Chair – Rachel Davies (ECMC/MARINELife)**

14:00 – Welcome and run down of the Workshop programme

14:05 – *Presentation: Rachel Davies & Lucy Babey, ECMC*  
Developing analytical protocols to assess trends in cetacean populations from ECMC structured surveillance data collected on ferries.

14:20 – *Presentation: Considering Reporting requirements, policy demands and monitoring data needs.*

14:40 – *Presentation: Antonella Arcangeli, ISPRA*  
Fixed Line Transect MED Monitoring Network.

15:00 – *Breakout discussion - Session 1:*  
Field methods and dealing with potential sources of bias and error, affecting detectability.

15:40 - Coffee Break (20 minutes)

#### **Session 2: Chair – Lucy Babey (ECMC/ORCA)**

16:00 – *Short talks session:*  
Series of short talks covering modelling approaches to compile annual abundance measures and trends over time and data representivity.

16:45 – *Breakout discussion - Session 2:*  
Data representivity of sampled routes and wider sea areas. Validation of trends observed.

17:20 – Report back from Breakout sessions and Q & As

17:50 – Workshop summary and thanks.

18:00 – Workshop close



Photo: Adriana Vella

Conference – Workshops programme sponsored by:

