

Agenda Item 5.1

Implementation of the Triennium Work Plan
(2010-2012)
Review of New Information on Population
Size, Distribution, Structure and Causes of
Any Changes

Document 5-08

**Report of the First ECS Workshop on
White-Beaked & Atlantic White-Sided
Dolphins**

Action Requested

- Take note of the report

Submitted by

ECS



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

Report of the **First ECS Workshop on White-Beaked & Atlantic White-Sided Dolphins, Stralsund, 21 March 2010**

Background and Objectives of the Workshop

The white-beaked dolphin *Lagenorhynchus albirostris* and the Atlantic white-sided dolphin *Lagenorhynchus acutus* both are endemic to the North Atlantic where they are considered among the commonest and most widely distributed dolphin species. And yet for both species, the available biological information remains scarce.

The white-sided dolphin was described in 1828 without specification of a type locality, the white-beaked dolphin almost two decades later in 1846 from two North Sea coast localities. Over the following decades, both species frequently were confused with each other and other dolphin species, namely the bottlenose dolphin and common dolphin.

Only in more recent years have new research programmes been developing, and already ongoing efforts on this species are intensifying.

The purpose of the workshop was to bring together all new information for a thorough discussion of the species, encompassing the following list of topics: Nomenclature, Morphology and Anatomy, Acoustics, Distribution, Population Structure, Reproduction, Photo ID, Ecology, Diet, Parasites, Pollutants, Climate Change, and Interspecific Competition.

Structure of the workshop

30 people attended the five sessions of the workshop (see participants list and workshop agenda).

The participants agreed to formalize the future co-operation by setting up a working group under the ECS. A preparatory group of seven was appointed: Peter Evans, Anders Galatius, Carl Kinze and Marianne Rasmussen - the four co-convenors, and Ilka Hasselmeier, Eulalia Banguera and Maria Iversen.

The workshop agreed on the following recommendations:

First, the workshop noted a significant lack of information on the two species and the need to establish or further develop co-operation between institutions and scientists to improve knowledge for the sake of basic research, nature management and public outreach.

Second, along with the implementation of further activities, the workshop established the need for additional financial resources from national and international research and nature management bodies for specific actions in accordance with the ASCOBANS agreement.

Session 1: Nomenclature, Morphology and Anatomy

The collection of specimens should be given high importance.

For fresh specimens, detailed studies into soft-tissue anatomy and histology should be encouraged.

Decomposed specimens should not be neglected since they may provide important additional information and insights, e.g. the detection of additional diagnostic features.

Further studies into osteology should be implemented in order to facilitate research in the fields of archeo-zoology and eco-history. Also, osteological methods to discriminate between geographical populations should be developed and tested.

Session 2: Distribution and Population Structure

Stranding networks should collect specimens using similar standards and should make information available to each other for co-ordinated analysis.

Ideally, in order to increase effort and continuity, the sourcing and collection of specimens should involve the co-operation of voluntary organisations. Information on collected specimens should be made available through a common database.

Suggestions for coverage of the common database include:

- details of samples available, including species, type of sample, collection dates, and geographical area of sampling
- the condition and location of the samples
- who to contact
- what the samples can be used for
- previous studies already conducted on the material
- planned studies on the material
- any unique study possibilities, e.g. the use of large scale radiography

A steering committee should be established to collect standardized annual reports from all participating institutions and to manage, maintain and update the database and – most importantly – to facilitate the flow of samples for best possible scientific investigations.

Resources should be made available for the management of such a common database

Systematic and incidental sightings programs are mutually beneficial to each other, and exchange of such data should also be encouraged. Apparent recent range changes need further investigation and better descriptions are needed of the habitat preferences of the two species throughout their range. Comprehensive population estimates are also required to better assess the global conservation status of the two species.

The population structure of both species needs further elucidation, with access being granted to some hitherto unstudied sample collections. Recent genetic analyses suggest that both species may show some sub-structuring, and both have low genetic variability and are therefore particularly vulnerable to range contractions.

Genetic information should be integrated with other studies such as habitat use and the collection of basic ecological data. Both kinds of studies are scarce, and therefore funds are

needed for further research and thus to improve our capacity to generate effective conservation plans for both species.

Habitat modelling should also be integrated with genetic findings, using landscape genetics. For genetic analyses, samples come mainly from opportunistic sampling carried out by stranding networks and museums. In order to have a better understanding of the population structure of both species, it is necessary to better cover their distribution range and therefore biopsy sampling will be required.

Session 3: Insights from Autopsies – Life History, Diet and Health

Noting that a common scheme already exists for post mortem analysis, the workshop recommends that these schemes be implemented in all range countries. It is, however, encouraged that metric measurements, stomach contents, teeth, skin and reproductive organs are sampled even in cases where animals are severely decomposed and full post mortem analysis is impossible.

Autopsies should be conducted, ideally by skilled veterinarians working in conjunction with biologists.

Ageing, along with methods to study reproduction and diet, should be co-ordinated and developed by means of dedicated workshops.

Regular training workshops should be arranged to promote the application of common sets of standards.

Session 4: Acoustics and Behaviour

There is a lack of sound recordings of white-beaked dolphins from other locations besides Iceland, and a general lack of acoustic information from Atlantic white-sided dolphins. Field researchers should be encouraged to systematically collect recordings of both species where possible.

There is limited knowledge on the behaviour of white-beaked dolphins and almost nothing is known for white-sided dolphins.

Workshop Agenda

Session 1: Nomenclature, Morphology and Anatomy

09:00 - 10:15 Chair: Carl Kinze; Rapporteur: Peter G.H. Evans

1. 9:00 – 9:05 Introduction to the workshop KINZE
2. 9:05 – 9:20 History of *L. acutus* and *L. albirostris* (key- note KINZE)
3. 9:20 – 9:30 Insights from strandings KINZE
4. 9:30 – 9:45 Osteology GALATIUS

9:45- 10:15 Coffee break and discussion

Drafting of recommendations

Session 2: Distribution and Population Structure

10:15 - 12:30 Chair: Peter Evans; Rapporteur: Carl Chr. Kinze

1. 10:15 – 10:30 Distribution and Abundance (key-note EVANS & ANDERWALD)
2. 10:30 – 10:45 White-beaked Dolphin: Inshore Studies England BRERETON
3. 10:45 – 11:00 Population Structure EULALIA BANGUERA
4. 11:00 – 11:15 Population estimates HANSEN
5. 11:15 – 11:30 Photo-ID *L. albirostris* RASMUSSEN / BERTULLI
6. 11:30 – 11:45 Climate change MACLEOD
7. 11:45 – 12:00 Discussion and drafting of recommendations

12:00-13:00 Lunch break

Session 3: Insights from Autopsies – Life History, Diet and Health

13:00 - 15:00 Chair: Anders Galatius; Rapporteur: Marianne Rasmussen

1. 13:00 – 13:15 Life history (Ageing and reproduction) key-note GALATIUS
2. 13:15 – 13:30 Life history of *L. acutus* MIKKELSEN
3. 13:30 – 14:30 Overview of life history data
 - a. British specimens DEAVILLE
 - b. Dutch specimens ADDINK
 - c. Danish and Swedish specimens KINZE
 - d. German specimens HASSELMEIER
 - e. Belgian and French specimens JAUNIAUX
4. 14:30 – 14:45 Diet JANSEN/ (G. PIERCE) GEMA HERNANDEZ
5. 14:45 – 15:00 Parasites, Pollutants & Pathology HASSELMEIER / JAUNIAUX / DEAVILLE

15:00-15:30 Coffee break and discussion

Session 4: Acoustics and Behaviour

15:30-17:00 Chair: Marianne Rasmussen; Rapporteur: Maria Iversen

1. 15:30 – 15:45 Acoustics (key-note RASMUSSEN)
2. 15:45 – 16:00 Behaviour BERTULLI
3. 16:00 – 16:30 Discussion and drafting of recommendations

Drafting of Recommendations

Session 5: Final discussion

16:30-17:30 Chair: Marianne Rasmussen

Appointment of Editorial Group

List of Participants

Aleksandra Matyskiewicz	yo-la-os@tlen.pl
Alicja Rudowska	aarudowska@o2.pl
Anders Galathius	agjorgensen@bio.ku.dk
Begoña Santos	m.b.santos@vi.ieo.es
Bjarni Mikkelsen	BjarniM@ngs.fo
Carl Kinze	gittecarl@mail.dk
Caroline Weir	c.r.weir@abdn.ac.uk
Chiara Bertuilli	ciarabertulli@yahoo.it
Christina Lockyer	christina@nammco.no
Colin Macleod	c.d.macleod@abdn.ac.uk
Eulalia Banguera	eubangui@yahoo.com
Frank Duursma	frank.duursma@wur.nl
Gema Hernandez-Milian	G.HernandezMilian@ucc.ie
Graham Pierce	g.j.pierce@abdn.ac.uk
Heidi Pearson	heidipearson@tamu.edu
Ilka Hasselmeier	ih@ftz-west.uni-kiel.de
Jan Herrmann	jan.herrmann@cetacea.de
Karen Hall	k.hall@abdn.ac.uk
Kerstin Voight	kerstin.voigt@me.com
Lonneke Ijsseldijk	lonneke_ijsseldijk@hotmail.com
Maria Iversen	phocoena@hotmail.com
Marianne Rasmussen	mhr@hi.is
Marjan Addink	Addink@naturalis.nnm.nl
Okka Jansen	Okka.Jansen@wur.nl
Olga Rutkowska	olgenso@gmail.com
Peter Evans	peter.evans@bangor.ac.uk
Pia Anderwald	panderwald@hotmail.com
Reyhan Sonmez	ryhnsnmz@yahoo.com
Rikke Hansen	rikkeguldborg@stud.ku.dk
Robert Deaville	Rob.Deaville@ioz.ac.uk
Sophie Lorent	sophie.lorent@gmail.com
Thierry Jauniaux	t.jauniaux@ulg.ac.be
Tina Centrih	centrih.tina@gmail.com
Tom Brereton	T.Brereton@Biscay-Dolphin.org.uk