PROCEEDINGS OF THE WORKSHOP

"HARMONIZING GLOBAL STRANDING RESPONSE."

Held at the World Marine Mammal Conference Barcelona, Catalonia, Spain, 07 December 2019



Stranding of sperm whales 2016 in Germany. Photo: Michael Dähne, email: michael.daehne@meeresmuseum.de

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Introduction

Examination of stranded marine mammals can provide valuable insight into marine mammal health, and identify environmental factors leading to strandings. Monitoring marine mammal health world-wide provides guidance for conservation and can help identify priority areas for management. However, some parts of the world lack personnel, infrastructure, funding and/or expertise to respond to marine mammal strandings in a manner that provides for animal welfare and obtains data on marine mammal health. In some areas, strandings can receive public and media attention and are perceived as emergencies. Elsewhere, strandings are frequent and considered routine, with no capacity or desire to respond to collect samples or data from the animals evident. In 2016, a multidisciplinary workshop sponsored by the International Whaling Commission (IWC) discussed how best to develop practical guidance on handling cetacean strandings. The workshop concluded that an international Strandings Initiative should be established under the auspices of the IWC. The need for a coherent international umbrella organisation that could link up national marine mammal stranding networks was also a recommendation of the Sea Alarm workshop organised in Brest, France in 2018. Furthermore, several national and international government agencies and NGOs have developed online stranding response training resources and regional protocols, including the Inrentantional Whaling Commission (IWC), The Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS), Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS), the US National Oceanic and Atmospheric Administration (NOAA), International Fund for Animal Welfare (IFAW), British Divers Marine Life Rescue (BDMLR), and Project Jonah. Despite these efforts, funding, logistical support and training remain a challenge to stranding response in many parts of the world. The gathering of over 2,000 marine mammal scientists from 90 countries in Barcelona in December 2019 offered a unique opportunity to gather many experts in stranding response with those in need of support in a workshop to assess synergies and identify what is required to coordinate, support, enhance and globalise the response to marine mammal strandings.

Workshop Aims and Objectives

The overarching aim of the workshop was to harmonise international marine mammal stranding responses and investigations to enhance data and sample collection and information sharing. Such investigations can detect environmental changes and/or emerging concerns that impact marine mammal populations.

Specific goals were to:

- 1. Define a global vision on how stranding response can act as a tool for monitoring marine mammal distribution and health, and detecting human activities and environmental changes that impact marine mammals;
- 2. Enhance cross-boundary communication and collaboration in order to provide logistical support and increase detection of local and large-scale impacts on cetaceans;
- 1. Identify common projects and individual strengths to catalyse harmonization and

cooperation across international agencies concerned with strandings investigation and response.

Agenda

- 1. Welcome, Introductions: Karen Stockin / Frances Gulland
- 2. Goals, Anticipated Outcomes of the Workshop: Frances Gulland / Karen Stockin
- 3. Lessons learnt across non stranding "emergency" response situations: Mike Ziccardi
- 4. Plenary Facilitated Discussion:

Review existing international resources for training and logistical support:

- a) Resources for live animal response: (Sarah Wilkin / Karen Stockin) Disseminating of instructions for refloat, euthanasia Resources for dead animal response: Postmortem to untrained first responders, what needs to be done immediately for science, what can wait?
- b) Diagnostic support: (Sandro Mazzariol / Frances Gulland) OIE update CITES update

Communications - transboundary research collaborations (Mike Ziccardi/ Hugo Nijkamp)

5. Breakout Group Activities (Facilitators, Steering Group led by Karen Stockin).

The workshop was divided into four breakout groups: Two addressed Activity 1 and two address Activity 2.

- 1. Filling current 'blind spots' for global environmental change surveillance.
- 2. Maximising cross border and inter-agency collaboration to enhance detection of emerging issues /environmental change.
- 6. Outline a plan or visionary document based on identified priorities from Activities 1 and 2 (Steering Group led by Frances Gulland / Karen Stockin).

In was anticipated that this would include recommendations for the International Whaling Commission (IWC) Strandings Initiative, the Marine Mammal Commission, the National Marine Fisheries Service in the US, as well as for national governments, and other national and international organizations and agencies concerned with marine mammal science and strandings response.

7. Closing remarks and thanks

Summaries of presentations

M.H. Ziccardi: Lessons learnt across non stranding "emergency" response situations

Ziccardi presented an overview of responses to oil spills, drawing on his extensive experience as Director of the Oiled Wildlife Care Network in California, USA (including wildlife responses during the Deepwater Horizon oil spill in 2010). He described the steps involved in developing standard National Guidelines for oils spill response in the U.S., and the value of using the Incident Command System (ICS). The ICS allows a tiered response that can be scaled up when needed. He gave examples of animal intake and necropsy procedures to illustrate the value of proactive planning and training for effective oil spill response.

H. Nijkamp: The Sea Alarm project

Nijkamp gave a perspective on responses to marine wildlife emergencies, defining such an emergency as "any event, or combination of events, natural or man-made, which cause a temporary unusual increase in wildlife casualties, and which threatens to overwhelm local resources". To be effective in emergency situations, existing stranding networks need to enhance professionalism by sharing and implementing vision, data and standards. If well coordinated internationally, they can systematically set standards to collect reliable baseline data that can help to monitor and anticipate the effects of global warming and its ecological effects. He stressed the value of leadership in connecting existing local, regional and international networks, filling geographical gaps, and the importance of governmental agencies providing infrastructure and support to hands-on stranding experts on the basis of wildlife emergency response management principles.

S. Wilkin: Global Marine Animal Stranding Toolkit (GMAST)

Wilkin gave an overview of the Global Marine Animal Stranding Toolkit (GMAST), that was developed by a multi-organizational team with input from stranding praticioners in the U.S. and Europe. Supported by NOAA, the GMAST training tools (presentations, videos, and protocols) are housed on the Woods Hole Oceanographic Institution's server. GMAST is a website (<u>www.gmast.org</u>) that offers resources for trainers who teach about responses to stranded marine mammals. GMAST offers an overview of the basics for stranding response, data collection, palliative care and human safety. Users need to register to have access to these resources.

P. Duignan: Necropsy protocols

Duignan gave an overview of protocols available for marine mammal necropsy, and outlined the value of tissue and fluid banks for disease diagnosis. Challenges to international shipping of marine mammal samples to comply with CITES and MMPA regulations were reviewed and recommendations made in regard to contingency planning, training responders, enlisting the services of local disease specialists and reference laboratories.

Discussion on the presentations

Key discussion points from the plenary discussion of the above presentations were:

- 1. There is vast variation in expected responses to stranded animals around the world, and in legal, ethical and cultural values of marine mammals (for example, in one attendee's home country, stranded animals are consumed as a valued protein resource rather than examined for science).
- 2. Protecting public health and safety, and reducing risk of zoonoses must always be emphasized. Many laboratories specializing in diagnostics for humans may not legally be able to handle animal samples. However, laboratories that service the agriculture industry may offer a better opportunity for testing tissues for microbial pathogens and even some potential toxins.
- 3. Many protocols for stranding response exist, some are more complex than others, most are publicly available yet are not all easy to access by a responder on a beach. How and who should or could have access to protocols can vary amongst countries and regions.
- 4. The availability of existing trainings and resources is not widely known worldwide.
- 5. Some of the more accessible materials, such as GMAST, are a little dated, and/or species specific (for example, there are fewer protocols available for sirenian response).
- 6. Most training materials are in English, so a real need exists for braoder instruction to be more available in wider n = languages
- 7. Training materials should not only be designed and used amongst scientists, veterinarians and trained first responders, but target fishermen and other local communities. There is a need for simple instructions for the public.
- 8. Training materials need to be more than documents, videos and small files that can be rapidly emailed or sent by platforms as applications such as WhatsAPP.
- 9. Many existing protocols were developed for specific species or situations, so these need further adaptation for other species and countries.

Breakout Groups

Breakout groups discussed two main topics, the key points are summarized below:

1. Filling current 'blind spots' for global environmental change surveillance

Key regions/countries which lack capacity yet have significant marine mammal populations are

- Southeast Asia (with the exception of Thailand) (SE Asia Marine Mammal Stranding Network is established yet more capacity is needed)
- East Afriaca, Mozambique
- South America
- Arabian Peninsula (Generally good in Oman, but no network in Saudi, Kuwait, Qatar, UAE, Yemen, Bahrain).
- Industrialized areas, areas with a lot of environmental change

Limitations that hinder capacity building are:

- Resources (funding, training, laboratories, permits, regulations)
- Geography (long remote, often unihabited coastlines)
- Socio-Political (in Norway for example no real drive to cover all their fjords)(in some countries, funding is derived from fishery agency so interest is limited to marine mammal interactions with fisheries)
- Lack of awareness of value of stranding response
- Lack of a reporting system

Currently many existing networks do not deliver data or samples that enable detection of environmental change and/or emerging issues.

Strategies to mitigate above limitations include:

- Creation of a Global Stranding Network, a platform under no international organization, that will offer possibility of immediate consult and access to pertinent experts. This could explain goals of stranding response, lists of contacts, and provide a roadmap of how to develop stranding networks locally and regionally.
- Provide a system for decision-making based on the resources available in country (e.g. ACCOBAMS: countries with limited resources are in the first level; second level countries are able to take some samples (mandatory/non-mandatory) depending on the knowledge; third level countries have full stranding response protocols).
- Developing capacity by identifying "champion" countries that could help others with less capacity for stranding response.
- Providing more advanced resources from international/more established networks.
- Developing or strengthening infrastructure to support stranding agreements.
- Establishing reporting systems (perhaps consider reporting major cetacean events via IWC, but need to consider other systems for all marine mammals), or dedicated government agency that deals with strandings, although NGOs often

lead local efforts, providing resources.

- Build something that scales appropriately to number of strandings and local capacity
- Share knowledge of existing tissue/fluid banks through a public database ('Sharkshare' example, could make a "Marmamshare").

2. Maximising cross border and inter-agency collaboration to enhance detection of emerging issues /environmental change

Collaborations could be enhanced through both top down and bottom up approaches. Topdown approaches require memoranda of understanding (MOUs) and/or agreements amongst countries and/or communities. These might be driven by concern over food security, or fisheries agreements. **Conversely**, "Bottom-Up" approaches involve networks to network collaboration, and areas with greater capacity supporting neighbours with less. Cross-border collaborations are needed to understand threats and status of animals throughout a species range.

Communication through community engagement, public talks, working with schools is important to collaborations.

There is a need for a frequently updated contact list for each country globally, for all marine mammal species. Such lists should include appropriate government agencies, veterinarians, first responders and diagnostic laboratories.

Further resources need to be available virtually - diagnostics, webinars, training.

Conclusions and Recommendations

- 1. There is a need for an independent "Global Stranding Network" that will provide a forum for collaboration to enhance response to stranded marine mammals globally. This network will be as inclusive as possible, initially consisting of all workshop attendees. Further international stranding responders from anywhere in the world may join by emailing a request to the website manager.
- 2. In response to the second goal of the "Barcelona Declaration" signed by the 2,500 attendees from 90 countries attending the World Marine Mammal Conference (Goal 2: To enhance and strengthen international collaboration to (1) ensure consistent, high-quality response to stranded marine mammals globally, and (2) support conservation efforts for species under threat of extinction), the "Global Stranding Network" was established at this workshop by popular demand of all workshop attendees.
- 3. The domain <u>www.globalstrandingnetwork.org</u> is to be acquired, for use as a communication tool and a venue to share training materials and protocols.

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