

Overview of the work of the technical adviser to the Secretariat to assist with reducing conflicts between cetaceans and marine resource users: October 2014 to October, 2016

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INTRODUCTION

At the 65th annual meeting of the International Whaling Commission in Portoroz, Slovenia, the previous work of the Technical Advisor was received, commended and urged to continue (item 13.3, Chair's report, 2014). The work supports a welfare initiative begun by Australia, Norway and the USA concerning the sometimes severe welfare issues associated with large whale entanglement in manmade materials (IWC, 2012). Given the growing evidence that large numbers of whales are accidentally wounded or killed each year incidental to human activities, this IWC initiative has been timely and well-received by participating countries and IGOs. Significant, specific progress has been made between IWC65 and IWC66 including continued capacity building on the issue for over 530 trainees representing at least 14 countries (Table 1).

Work on several key aspects of this initiative is planned to continue between IWC 66 and 67, during which the TA will: 1) continue to **build capacity**, for better welfare and management outcomes, 2) help to collect better data to understand the issue (e.g. through capacity building and assisting in the establishment of an IWC **global database on entanglement**), and 3) work toward prevention by helping to advance work generated from an IWC workshop on **entanglement prevention** in 2016. Much of this work will be facilitated, complemented and expanded by continuing to work with relevant IGOs (e.g. FAO-COFI, CPPS, UNEP, SPREP etc).

The following is a brief summary of the work carried out by the technical assistant between IWC65 and IWC66:

KEY ACCOMPLISHMENTS

Working closely with the Secretary, Commissioners from relevant countries, Commission sub groups and panels (esp. the entanglement response advisory group), as well as cooperating organizations (e.g. UNEP, CPPS, NGOs...etc.), the technical advisor has helped to organize, conduct and/or represent the IWC at the following:

- Arranged for and supervised five **entanglement apprenticeships** (3-4 weeks duration) in New England (USA), for training participants identified from Brazil, Chile and Mexico.
- As part of apprentice training, and the partnership with CCS, assisted with research studying various aspects of humpback whale health, and the **impacts of entanglement and implanted satellite tags** (July 2015).
- Gave invited overview presentation on the entanglement issue and the IWC initiative, to:
 - The combined conference of **SOLAMAC-SOMEMA** (Latin American and Mexican Societies on aquatic mammals), during a symposium on human impacts, convened by the Permanent Commission of the South Pacific (Dec. 2015)
 - The **Arabian Sea Humpback Whale** Workshop (Dubai, January, 2015)
 - Rescue workshop at 2015 **European Cetacean Society** Conference (Malta).
 - **Entanglement Response Workshop** at 21st Biennial Conference of the **Society for Marine Mammalogy** (2015, San Francisco)
 - **21st Biennial Conference** of the Society for Marine Mammalogy
- Represented the IWC at:
 - The 2014 annual meeting of the **Secretariat of the Pacific Regional Environment Programme (SPREP)**. (Marshall Islands)
 - Keynote given to the third International Conference on Marine Mammal Protected Areas (**ICMMPA** (Adelaide Australia, November, 2014).
 - The 2015 annual meeting of the **Secretariat of the Pacific Regional Environment Programme (SPREP)**. (Apia, Samoa)

Table 1. Organized and/or Conducted IWC endorsed, **entanglement response training for**

Dates of training	Countries, Commonwealths, Territories and Organizations	# of Response trainees in Classroom only*	# of Response Trainees	IWC Trainer(s)
18-19/01/2014	Mexico (El Vizcaino Biosphere Reserve)	14	20	Mattila & Lyman
3-4/4/2014	Dominican Republic**	10	14	Mattila
	Puerto Rico		2	
29-30/7/2014	Tonga	2	7	Mattila
	Vanuatu	1	2	
22-23/09/2014	Mexico (Oaxaca)	0	35	Landry
9-10/10/2014	Mexico (La Paz, advanced)	0	33	Lyman
3-4/11/2014	Mexico (Pt Vallarta, advanced)	10	30	Mattila
30/06/2015	POWER crew, Shiogama, Japan		~30	Mattila
06-12/11/2015	Muscat, Oman	40	12	Mattila & Sharp
17-19/11/2015	Vina del Mar, Chile	40	24	Mattila & Rebolledo
1-2/12/2015	Guadeloupe**	18	12	Mattila
	Dominica		1	
3-4/12/2015	Martinique**	18	12	Mattila
	Dominica		2	
28/6 – 1/7/2016	Nuuk, Greenland	4	18	Mattila
9-10/9/2016	Los Organos, Peru	45	12	Mattila & Beets
14-15/9/2016	Imbituba, Brazil	54	12	Mattila & Aranha

*These numbers are estimates, as the seminars and classroom training were open to Government staff, Universities, Scientists, Veterinarians, Navy and other potential support or decision-making parties, but who were not candidates for the practical training on the water.

** Several “National” trainings brought some trainees from member countries to participate in the National trainings for Dominican Republic and French Caribbean.

- Assisted with convening and participated in several IWC intersessional workshops, including:
 - Third IWC workshop on **Entanglement Impacts and Response** (Provincetown, April, 2015)
 - IWC Workshop to **Support the IWC’s Consideration of Non-Hunting Related Aspects of Cetacean Welfare** (South Africa, May, 2016)
 - Joint IWC/NOAA workshop on **Entanglement Prevention** for large whales (Portsmouth, USA, May, 2016)
- Coordinated production of an “IWC Entanglement Response handout”, produced in response to requests from funding organisations, seeking publicity material that could be shared with their supporters to show the tangible impact of past and future donations. The IWC also plan to use the handout, where appropriate, when approaching potential future donors. The handout is at Annex A.

At large whale entanglement response training workshops in Oman, Chile, Peru and Brazil a second trainer, usually a former apprentice, assisted. The goal, beyond managing the large number of trainees, is to increase the number of individuals qualified to give the IWC endorsed training (i.e. training the trainers). This has resulted in the first Spanish-Speaking IWC trainers.

Costs of attending most of the conferences and workshops were provided by the host organizations, or by the USA and NGOs through voluntary contributions to the IWC entanglement fund. See the IWC "Entanglement Response" leaflet for list of supporters.

UPCOMING WORK

Much of the work undertaken for the IWC by the technical adviser has been well received by the participants and partnering countries and organizations (i.e. IGOs, NGOs). As such, the requests for both capacity building and collaboration on technical matters with other IGOs have continued to increase. The following is some of the work requested to occur between IWC66 and IWC67:

- IWC Overview presentation for regional workshop on human impacts to cetaceans, for participants from Indonesia and Malaysia (Thailand, November, 2016)
- IWC entanglement response training for Thailand, as part of regional workshop (Thailand, November, 2016)
- Convene workshop on Trilateral cooperation for transboundary entanglement events between Mexico, USA and Canada (Puerto Vallarta, November, 2016)
- Convene small group to advance design of IWC global database on whale entanglements (Puerto Vallarta, November, 2016)
- Continue ongoing discussions to facilitate capacity building with Colombia, Russia, Chile, SPREP etc.

REFERENCES

Chair's Report, 2014. Chair's Report of the 65th Annual Meeting, 15-18 September 2014, Portoroz, Slovenia.
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International Whaling Commission. 2012. Report of the Workshop on Welfare Issues Associated with the Entanglement of Large Whales. *J. Cetacean Res. Manage. (Suppl.)* 13:461-82.

International Whaling Commission. 2016. Entanglement Response leaflet.

ENTANGLEMENT RESPONSE



INTERNATIONAL
WHALING COMMISSION

ENTANGLEMENT

The need for a global response

Overriding principles of the IWC Global Entanglement Response Network

Human safety always comes first

Disentanglement is only the first step.
Prevention is the long-term goal.

*Research has suggested that
**over 300,000 whales and dolphins
die each year due to entanglement
in fishing gear or marine debris.***

Entanglement is arguably the single most significant threat to cetacean welfare, and an obstacle to the recovery of some endangered whale populations.

Some animals drown whilst others tow heavy, tightly wrapped lines which cut through skin and blubber causing infection, starvation and even amputation of fins or tail.

In response to the rising number of reported entanglements, the IWC held a workshop on the welfare implications in 2010. This was followed by the appointment of an expert advisor, tasked with the development of a Global Whale Entanglement Response Network. A further workshop in 2011 assembled a panel of international experts to establish safe and effective disentanglement protocols which were then developed into a training programme, available to all IWC member governments interested in building or expanding their entanglement response capability.

Disentangling large, often injured animals at sea is a difficult and dangerous task. Another priority identified by the expert panel was to highlight the risk involved, and emphasize the importance of professional, trained and equipped response.

The programme was developed as a partnership between the IWC and the Center for Coastal Studies (CCS), Provincetown, USA. The CCS is a very appropriate host for the Entanglement Network. It has been at the forefront of entanglement response since the problem was first identified in the 1970s, developing some of the tools, and pioneering techniques in use today.

The first IWC-CCS training workshop was held in Brazil in 2012. Since then, more than 700 entanglement responders have been trained and the Network has reached across twenty six countries and four continents.

Several workshops have been held in conjunction with regional agreements such as the IWC Conservation Management Plan for South Pacific right whales, and the marine mammal action plans of the Permanent Commission for the South Pacific, the United Nations Environment Programme's Specially Protected Areas and Wildlife Protocol and the Secretariat of the Pacific Regional Environment Programme.

THE TRAINING

Training workshops are tailored to the specific requirements of the host government, but all follow the protocols and curriculum devised by the international expert panel in 2011. The majority of workshops last for two days.

The first day is spent in the classroom where participants receive an overview of the global entanglement problem and approaches taken by other countries. The importance of collecting data from every entanglement is also highlighted. This is followed by region-specific information, examples of local entanglement events and relevant regulations. Correct use of tools, techniques and safe decision-making procedures are also discussed.

On the second day, participants put theory into practice on the water. One boat simulates an entangled whale, trailing ropes, nets and other objects likely to form part of a local entanglement. A second ‘rescue’ boat carries two of the trainees at a time, equipped with the custom-made tools to practice the techniques learnt in the classroom.



Demand has enabled the programme to expand, now offering Spanish language training (conducted by some of its own apprentices) and advanced workshops, helping those already trained to perform more difficult disentanglements.



YEAR	LOCATION	NUMBER OF TRAINEES (classroom and boat-based)
2012	Brazil	43
2012	Argentina	60
2012	United Kingdom	23
2012	Mexico (Pt Vallarta)	53
2012	Mexico (La Paz) inc. Costa Rica, Dominican Republic and Panama	46
2013	Ecuador (Salinas) inc. Chile, Columbia, Panama and Peru	34
2013	Panama	30
2013	French Caribbean inc. Anguilla, Belize, Colombia, Dutch Caribbean, Trinidad and Tobago, Puerto Rico, St Lucia, St Kitts and Nevis, Venezuela	12
2014	Mexico (El Vizcaino Biosphere Reserve)	34
2014	Dominican Republic inc. Puerto Rico	36
2014	Tonga inc. Vanuatu	12
2014	Mexico (Oaxaca)	35
2014	Mexico (La Paz, advanced)	33
2014	Mexico (Pt Vallarta, advanced)	40
2015	Japan (Shiogama)	30
2015	Oman (Muscat)	52
2015	Chile (Vina del Mar)	64
2015	Guadeloupe	42
2015	Dominica	3
2015	Martinique	42
2016	Greenland (Nuuk)	18



In 2015, two apprentices were able to join the CCS team on a real and very challenging 11-hour operation to free a humpback.

APPRENTICESHIP SCHEME

As the Network has grown, an apprenticeship scheme has been developed, enabling trainees previously attending a workshop to spend time with the experts at CCS in Provincetown and build the advanced skills needed to lead entanglement response teams in the future.

To date, eight entanglement responders have each undertaken a three week apprenticeship. All had previously attended a training workshop and been assessed as suitable to play a key role in further capacity building.

The apprenticeship covers a variety of subjects, from boat safety and design of the custom-built tools, to study of the approaches taken by different response teams around the world.

In 2015, two apprentices were also able to join the CCS team on a real and very challenging 11-hour operation to free a humpback.

The most important aspect of the apprenticeship is learning effective ways to deliver entanglement response training to others. David Mattila, who leads the training programme and coordinates the Network, explains which topics should be covered, and works with apprentices to develop presentations and teaching materials most appropriate to the region where apprentices will subsequently work. Former apprentices are now delivering their own training workshops, strengthening the Network in Latin America.

PREVENTION

Long-term entanglement prevention is one of the Network’s overriding principles.

More data is required to understand which types of fishing gear or debris pose the greatest threat, and which species or regions are most affected. Every training workshop covers the importance and methods of data collection.

In 2015, the original expert panel and newer Network members gathered to discuss the way ahead for entanglement prevention. A global database was one of the key recommendations. Operated by the IWC, this aims to coordinate international data

gathering efforts, enabling scientists to build a clearer picture of the situation worldwide; to identify regional hotspots and types of entanglement that occur most often, or have the most damaging impacts.

The workshop also recognised that prevention work is in its infancy. For the foreseeable future, the Global Whale Entanglement Response Network has an important role to play.



SUPPORTERS

The IWC Entanglement Response Network has been supported by a wide variety of organisations. This support ranges from generous financial contributions to provision of boats and equipment. It is not possible to list them all here, but the success of the Network is in large part down to these organisations and the IWC extends sincere thanks to them all.

Intergovernmental Organisations

- United Nations Environment Program (Caribbean Environment Program)
- Cartagena Convention (Specially Protected Areas and Wildlife, Regional Action Committee)
- Permanent Commission of the South Pacific
- Secretariat of the Pacific Regional Environment Program
- Global Environment Fund

IWC Governments and Governmental Organisations

Argentina:

- Ministry of Foreign Affairs (Ministerio de Relaciones Exteriores y Culto)
- Direccion de Fauna y Flora Silvestre - Province of Chubut
- Prefectura Naval Argentina (Coast Guard)
- Facultad de Ciencias Veterinarias – Universidad de Buenos Aires

Brazil:

- Centro Nacional de Pesquisa e Conservação de Mamíferos Aquáticos (CMA)
- Chico Mendes Institute for Biodiversity Conservation (ICMBio)

Chile:

- SERNAPESCA (Fisheries)
- Chilean Navy (Armada de Chile)

Caribbean (esp. Lesser Antilles)

- Agoa Sanctuary
- Réserve Naturelle Nationale de Saint-Martin
- Parc national de la Guadeloupe
- Agence des aires marines protégées
- Government of the Netherlands

Dominican Republic:

- Sistema Nacional Areas Protegidas
- Ministerio de Medio Ambiente y Recursos Naturales
- El Santuario de Mamíferos Marinos de la República Dominicana

Ecuador

- Gobierno de Ecuador
- Ecuadorian Navy (Armada Ecuatoriana)
- NOAA

Greenland

- Naalakkersuisut (Government of Greenland)
- Kanuaana (Greenland Fisheries License Control)

Mexico

- CONANP (Comisión Nacional de Áreas Naturales Protegidas)
- Mexican Navy (Armada de México)
- PROFEPA (Procuraduría Federal de Protección al Ambiente)
- NOAA (National Oceanic and Atmospheric Administration)

Panama

- ARAP (Autoridad de los Recursos Acuáticos de Panamá)
- SENAN (Servicio Nacional Aeronaval)
- NOAA

Oman

- MECA (Ministry of the Environment and Climate Affairs)
- Royal Oman Police Coast Guard (البحرية الاماراتية)
- Royal Navy of Oman (البحرية الاماراتية)
- USA Department of Interior

Non-Governmental Organizations

- Fundacion Cethus – Argentina
- World Animal Protection (formerly WSPA) – UK (Ecuador, Dominican Republic, Tonga, Mexico)
- Humane Society International
- Ecologia y Conservacion de Ballenas - Mexico
- Universidad Autonoma de Baja California Sud (La Paz, San Ignacio)
- World Wildlife Fund – Chile
- Conservation International - Ecuador
- National Resources Defense Council – San Ignacio, Mexico
- Ecoturismo Kuyima – San Ignacio, Mexico
- Center for Coastal Studies – USA (All and apprentices)
- Centro de Conservacion Cetacea (CCC) – Chile
- International Fund for Animal Welfare USA (Tonga, Oman)
- Oceancare
- Animal Welfare Institute
- Cetacean Society International
- DJ&T Foundation



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