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Report on the development of the online IWC Whale Watching Handbook

Gianna Minton, Sarah Ferriss, Ryan Wulff



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1. BACKGROUND

The development of an online Whale Watching Handbook is a long-standing recommendation of both the Scientific Committee and Conservation Committee. In 2017 funding was made available for its development, through contributions to the Voluntary Conservation Fund from the UK and the USA. In addition, the Convention on Migratory Species agreed to fund the translation of the online handbook into French and Spanish.

Following a call for tender and application process, a contractor (Gianna Minton) was appointed to develop and source the content for the Handbook in accordance with detailed Terms of Reference. A separate contract was established with a web design firm (<u>Chameleon Studios</u>) to design and develop the online tool. The project was coordinated by the Secretariat's Head of Programme Development.

Both the content and web infrastructure for the draft Handbook are nearing completion. However, the website is still undergoing final revisions and therefore it is still housed on a provisional site and is not yet publically accessible.

This document provides an update on progress with the development of the Whale Watching Handbook and an overview of the content that has been drafted. The Scientific Committee is invited to provide comments on progress to date and, as appropriate, on the content generated and to make recommendations on the role of the SC in the future maintenance of the Handbook.

2. WEBSITE DESIGN AND STRUCTURE

A draft site map was developed in July 2017. This was based on discussions at two IWC-hosted whale watching workshops in Patagonia (2010) and Brisbane (2013), and previous meetings of the Standing Working Group on Whale Watching (SWG-WW) and the Scientific Committee. The site map was circulated to the SWG-WW on whale watching, the whale watching subcommittee of the Scientific Committee and the intersessional group established to support the development of the Handbook. The images below illustrate the design, structure and content of the site.



Home page (left) and home page showing the drop down menu that appears when a user clicks on the Responsible Management tab on the top menu bar. Clicking on the map or the 'overview and interactive map' item takes the user to the Responsible Management portal page with its map interface (see below).



Responsible Management portal page (left), and close-up of inter-active map with the drop-down menu that appears when a user has clicked on the outline of Australia (right - additional species of interest have been uploaded since this image was generated).

				SPECIES				4	
FILTER RESULTS				The IWC is the international forum for the conservation and	Humsback Whale	Grav Whate	Right Whate	Kiler Whate	Elue W
Title or author Journal	Article 🗸	ISBN 2015 Keywords	SEARCH	worldwide management of whales and dolphins.					
				This Handbook is designed to support managers, regulators, operators and anyone interested in whate watching. It is a flexible and evolving tool	Minke Whate	Fin Whate	Bottlenose Dolphin	Sperm Whate	Spetted D
AUTHORS	YEAR	TITLE	CATEGORY	incorporating international best practice, educational resources and a summary	*	4			
Villegas-Amtmann, S.; Schwarz, L. K.; Sumich, J. L.; Costa, D. P.	2015	A bioenergetics model to evaluate demographic consequences of disturbance in marine mammals applied to gray whates	Journal Article	of the latest, relevant scientific information.	Spinner Dolphin	* *	Plat Whate		Bryde's Whate
Tezanos-Pinto, Gabriela; Constantine, Rochelle; Mourão, Fabiana; Berghan, Joanne; Scott Baker, C.	2015	High call mortality in bottlenose dolphins in the Bay of Islands, New Zealand-a local unit in decline	Journal Article						
Shawky, Ahmed M: Alwany, Magdy A; Zakaria, Saad; El-Etreby, Salah G 2015		Estimation of the abundance of the spinner dolphin Stenella longitostris using photo identification technique in Samadai Reef, Red Sea, Egypt	Journal Article		Common Dolphin	Striped Dolphin	Dusky Delphin	Irrawaddy Delphin	Humpback
Silva, Luis	2015	How ecolourism works at the community-level: the case of whale-	Journal Article						

Searchable table of whale watching literature (left) and drop-down menu leading to detailed species accounts (right).

3. CATEGORIES OF CONTENT

The Handbook will be an online resource, accessed through tabs on the 'portal page' that is created for each target group: policy-makers and regulators, industry, and the general public.

In accordance with the ToR established for the development of content for the handbook, there are five categories of content to be reviewed:

- 1. <u>Original content drafted for the Responsible Management, Preparing for a Trip, and Industry</u> <u>Support sections of the Handbook</u>: These will be accessed through the main tabs on the 'portal page' that is created for each target audience group. These texts draw from published papers, workshop/conference reports, books and manuals, and include numbered in-text citations. However, an effort has been made to keep the text accessible for non-scientists. See Table 1 for more information.
- 2. <u>Case studies (20)</u>: These are generally 3-5 pages long including illustrations and references. Each one has been drafted in close consultation with at least one individual closely involved with the area or project in question .
- 3. <u>Species accounts (20)</u>: These have been produced in two formats for each of the 20 species that are featured: 1) a longer online version where text can be hidden and revealed under each sub-heading, and 2) a 1-page downloadable PDF factsheet that potential whale watchers and/or guides can download onto tablets or phones or print and laminate to use on the boat. The latter have provisionally been drafted as power-point files, and are currently being reformatted professionally using InDesign.
- 4. <u>Country Profiles</u>: 25 of the desired 30 profiles have been drafted, and we are still waiting for more content to be contributed by the last few member states. Each country profile will be reviewed by the relevant country's Commissioner or delegation member. To date, 12 have been reviewed and thus uploaded to the provisional handbook site.
- 5. <u>Downloadable content</u>: This includes a searchable table of over 300 peer- reviewed/scientific articles on whale watching, tables with links to guidelines and regulations from almost all of the featured countries on the website, tables with links to region-specific species guides, and tables with (internal and external) links to content of specific interest to managers (workshop reports, global reports on whale watching) or industry (certification schemes, sustainable eco-tourism resources, etc). Suggestions and contributions of additional resources to include in these tables are welcome.

The tables in the appendices provide detailed information on the items of content that have been drafted and are available for review by the SC. If you wish to review a particular item, please write to <u>gianna.minton@gmail.com</u> to request the document (see also section 4.1 below).

4. SECTIONS FOR SCIENTIFIC COMMITTEE FOCUS

4.1 Review at SC

While Scientific Committee input is invited on all aspects of the Handbook, there are some sections of particular relevance and for which Scientific Committee input is specifically invited:

- The benefits and impacts of Whale Watching
- Contributing to Science and Conservation
- Glossary of Whale Watching terms
- Species profiles (overview in Appendix 3)
- Case studies (overview in Appendix 2)

In addition, the Scientific Committee is invited to review and, where relevant, add to the following:

- Scientific Literature: Searchable Database
- Table of studies documenting impacts of whale watching

These items will be made available as working papers for the WW subcommittee during the meeting.

4.2 Industry input

The Handbook would significantly benefit from more input from the whale watching industry. The Scientific Committee is asked to offer advice on how industry input could best be secured to both review existing content and make suggestions for additional content that would appeal to and support this target group.

4.3 Future requests of the Scientific Committee

It is intended that the Handbook will be updated on an ongoing basis to ensure that it is current and relevant. This will include continued collection of case studies, country profiles, literature etc. It is expected that updates can be made by the IWC Secretariat following advice from the Scientific Committee and Conservation Committee.

The Scientific Committee is asked for advice and support in periodically updating the following sections of the Handbook:

- Scientific Literature: Searchable Database (yearly)
- Table of studies documenting impacts of whale watching (yearly)
- Guidelines or regulations (yearly or as new regulations are issued).
- Updates to species information (perhaps every two years)
- Updates to case studies (perhaps every two years)
- Other text sections on request

Appendix 1: Overview of content drafted or compiled for each target audience

These texts are available for review. If you wish to review a particular item, please write to gianna.minton@gmail.com to request the document. The items in Red have not yet been reviewed by a member of the SWG or SC intersessional group to support the handbook and would most benefit from a review.

Responsible / Management / / / Preparing for a / trip / / /	Topic/Title The Benefits and Impacts of whale watching Table of studies documenting impacts of whale watching Management strategies and tools Monitoring and Enforcement Stakeholder engagement and adaptive management	count 1500 350 1455 900 1525			
Management 7 Image: Management 7	Table of studies documenting impacts of whale watching Management strategies and tools Monitoring and Enforcement Stakeholder engagement and adaptive management	350 1455 900			
Preparing for a trip	Table of studies documenting impacts of whale watching Management strategies and tools Monitoring and Enforcement Stakeholder engagement and adaptive management	1455 900			
Preparing for a trip	Monitoring and Enforcement Stakeholder engagement and adaptive management	900			
Preparing for a trip	Stakeholder engagement and adaptive management				
Preparing for a trip		1525			
Preparing for a trip					
	What is Responsible Whale Watching?	1750			
	Ways to watch whales and dolphins	1050			
	Questions you can ask when booking a whale watching tour	1000			
	Contributing to Science and Conservation	1350			
Industry Support	The Benefits of Responsible Whale Watching				
	Offering the Best Possible Experience	1300			
	Your business and the Local Community	700			
	On Board Education	1085			
]	Research methods used to study whales and dolphins	1600			
Downloadable Resources	Glossary of whale watching terms (intended for the general public – different to the glossary drafted by the IWC WW subcommittee) Searchable table of whale-watch related literature (published chapters, journal	1500			
	articles, etc) Table of guidelines and resources with links to PDF's or government websites where they can be downloaded – updated from 2012 Carole Carson Compendium where possible Table of resources for managers with links to PDF's or websites where PDF reports, brochures, posters etc can be downloaded. Table of resources for industry/operators with links to PDFs or websites where PDF reports, brochures, posters etc can be downloaded. Table of regional species ID guides with links to PDFs or websites where PDF				

Table 1. Overview of Original Content drafted for each target Audience

Appendix 2. Overview of Cases studies and key words for filtering

These case studies have read and approved by a researcher/stakeholder directly involved in the area or project described. These have all been uploaded onto the provisional website created for the handbook, and can be accessed through the interactive map and/or a table which allows users to search by country, species, platform, management tool, and management issue.

Table 2. List of case studies and key words for filtering.

	Case study	Country	<u>Platform</u>	<u>Species</u>	<u>Management</u> <u>tool</u>	<u>Management</u> <u>Issue 1</u>	Management Issue 2
1	PenínsulaValdés,Chubut,Argentina :aamulti-stakeholder,multi-stakeholder,multi-faceted,adaptiveapproachtoregulationregulationofwhale-watching	Argentina	Vessel-based	Right whale	Limited permits	Adaptive management	Stakeholder collaboration
2	Loreto Bay, Gulf of California, Mexico : A passive observation method for sustainable blue whale watching	Mexico	Vessel-based	Blue whale	Approach guidelines	Compliance	Stakeholder collaboration
3	Chilika Lagoon, India: Nowhere else to go: a population of Irrawaddy dolphins under intense pressure in a semi-enclosed body of water	India	Small boat	Irrawaddy dolphin	Local stakeholder involvement	Over-crowding	Enforcement
4	The Whale Trail : Promoting and facilitating land-based whale watching on the Pacific Coast	USA	Land-based	Killer whale, gray whale, humpback whale and others	N/A	Stakeholder collaboration	Awareness raising
5	Gulf of Maine, Northeast US: Whale watching contributes to long- term monitoring of whales	USA	Vessel-based	Humpback whale	Voluntary code of conduct	Tourism and research	compliance
6	Kaikoura, New Zealand: Adaptive management of an industry in harmony with traditional values	New Zealand	Vessel- based/Swim with	Sperm whale, dusky dolphin	Limited permits, approach guidelines	Socio- economic benefits	Adaptive management
7	Praia do Forte, Brazil: Calculating the tourism carrying capacity of a whale-watching area	Brazil	Vessel-based	Humpback whale	Limited permits	Stakeholder collaboration	Carrying capacity

8	Samana Bay, Dominican Republic: The strengths and challenges of co- management of whale watching	Dominican Republic	Vessel-based	Humpback whale	Limited permits, approach guidelines, enforcement agencies	Stakeholder Collaboration	Enforcement
9	Whale watching in Kenya: Whale and dolphin watching as an alternative to fishing and a means of reducing marine mammal bycatch	Kenya	Vessel-based	Humpback whale	Approach guidelines		Bycatch mitigation
10	Whale watching in the Antarctic: Platforms of opportunity in new frontiers	Antarctic	Vessel-based (live- aboard)	Humpback whale, minke whale, killer whale	Industry drafted guidelines	Tourism and research	Industry driven regulation
11	Whale watching in Scotland: Understanding the socio-economic impacts of Whale watching	United Kingdom	Vessel-based	Minke whale, harbor porpoise, bottlenose dolphin	Voluntary guidelines	Socio- economic benefits	
12	The Canary Islands: Neighbouring islands: worlds apart	Spain	Vessel Based	Pilot whale, Risso's Dolphin, Sperm whale, and multiple	Approach guidelines, limited permits	Overcrowding	Tourism and research
13	Dwarf Minke Whales on the Great Barrier Reef : Swimming with little giants	Australia	Swim-with	Minke whale	Limited permits, Approach guidelines	Permitting	Tourism and research
14	Samadai Reef, Egypt: Time Area closures promote responsible swimming with spinner dolphins	Egypt	Swim-with	Spinner dolphins	Protected Area, Park laws	Time area closures	Permitting
15	Mingan Island Cetacean Study: Research-based tourism	Canada/US/Portugal	Vessel-based, Research	Blue whale, Sei Whale	N/A	Tourism and research	
16	The Azores: Whalers turn their skills to whale watching	Portugal	Vessel –based	Pilot whales, multiple other species	State law	Indigenous knowledge	Stakeholder collaboration
17	Studio Bruinvis, the Netherlands : Land-based dolphin watching with a technical twist	Netherlands	Land-based	Harbour porpoise	N/A	Awareness raising	
18	Bocas del Toro Panama: Can Tourists and community	Panama	Vessel-based	Bottlenose dolphins	Approach guidelines	Overcrowding	

	members turn the tide for dolphins?					
19	Tonga : Swimming with humpback whales	Tonga	Vessel-based Swim-with	Humpback whales	Approach guidelines, national regulations	Sustainability
20	PortStephensandPhillipHarbours, Australia:Can codes of conduct be effectivewithout enforcement measures?	Australia	Vessel-based	Bottlenose dolphins	Voluntary code of conduct	Compliance

Appendix 3. Overview of Species Accounts

For the moment, the illustrations of species and the distribution maps on these drafts are just place markers and have been scanned from various sources. The IWC has commissioned an artist to produce new illustrations of all 20 species that will be featured. The IWC has also been granted permission to use the distribution maps from the new Encyclopedia of Marine Mammals (which have been adapted from Jefferson et al. 2015¹).

To complement the species accounts, there will be a separate table on the website that includes all of the most recent abundance estimates as generated by IWC Comprehensive Assessments. This table will be produced after the 2018 SC, where a group will be working specifically on this task.

	Species	Most recent Draft	Full account Word count*	Expert review completed by:	Notes/additional information or images required
1		110	1.500	Trevor Branch and	Would still like map/figure showing IWC recognized breeding/feeding
	Blue whales	V3	1500	Paula Olson	stocks and (possible) migration routes.
2	Bottlenose dolphins	V4	2000	Randy Wells	
3	Bryde's whales	V2	1200	Gwen Penry	
4	Common dolphins	V2	1000	Giovanni Bearzi	Would still like a photo of Black Sea common dolphin if possible
5	Dusky dolphins	V3	900	Simon Elwen	
6	False killer whales	V3	1000	Paula Olson and Robin Baird	
7	Fin whales	V3	1000	Bob Brownell	
8	Gray whales	V3	1525	Randall Reeves	
9	Humpback dolphins	V3	1300	Gill Braulik	
10	Humpback whales	V6	1900	Randall Reeves/Greg Donovan	Would like world map/figure showing IWC recognized breeding/feeding stocks and (possible) migration routes.
11	Irrawaddy dolphins	V3	900	Gianna Minton	
12	Killer whales	V3	1500	Bob Pitman	
13	Minke whales	V3	1100	Deborah Palka	Would still like Photo showing a minke whale with WW vessel?
14	Pilot whales	V4	1600	Paula Olson	
15	Right whales (North Atlantic and Southern)	V3	1600	Greg Donovan	recognized migration routes between feeding and breeding areas.
16	Sei whales	V3	950	Bob Brownell	
17	Sperm whales	V3	1300	Shane Gero	

Table 3. List of species accounts and reviewers

18	Spinner dolphins	V3	1250	Tom Jefferson	
19				Eric Archer	A few more photos would be good if possible – especially photos of
	Spotted dolphins	V3	1400		this species with WW vessels if possible.
20	Striped dolphins	V3	1100	Eric Archer	
					Outside of remit for the first round of content – but would be nice to
21					include if someone can draft – as opportunistically observed during
	Harbour porpoise				WW in most areas of Europe and N Atlantic
	Total completed	20			

1 Jefferson, T. A., Webber, M. A. & Pitman, R. L. *Marine Mammals of the World: a Comprehensive Guide to their Identification. Second Edition*. (San Diego: Academic Press, 2015).