#### 5th INTERNATIONAL WHALE SHARK CONFERENCE - DRAFT PROGRAM AND PRESENTATION SCHEDULE

#### Tuesday, 28th May 2019 Mandu Mandu Function Centre

Time	Activity	Presenter
08:00-08:20	Registration and Coffee	
08:20-08:25	Housekeeping	Mark Meekan
08:25-08:35	Welcome to Country	Hazel Walgar, Traditional Owner
08:35-08:45	Official Opening	Hon. Stephen Dawson, Minister for Environment
08:50-09:45	Key Note: Ecotourism impacts on sharks: research priorities & approaches	Neil Hammerschlag
Theme:	Ecotourism	Chair: David Rowat
09:50-10:05	How do we improve conservation planning for whale sharks?	Simon Pierce
	Baitfish, bagans and big sharks: an overview of CI's Indonesian whale shark conservation	
10:05-10:20	research initiative	Mark Erdmann
10:20-10:50	Break	
	The needle in the haystack: In search of a whale shark aggregation on the Great Barrier	
10:50-11:05	Reef	Adam Barnett
	Whale shark tourism development: opportunities and challenges, a lesson learned from	
11:05-11:20	Botubarani – Gorontalo, Indonesia	Asril Djunaidi
11:20-11:35	The economic value of community-based whale shark tourism in Sumbawa - Indonesia	Maulita Hani
	The contributions of whale shark tourism to sustainable integrated coastal management:	
11:35-11:50	Oslob whale sharks	Judi Lowe
	Top-down versus bottom-up management: finding the balance when provisioning an	
11:50-12:05	endangered species	Christine Legaspi
	Protecting an endangered species: whale shark tourism as an incentive-based conservation	
12:05-12:20	approach	Jackie Ziegler
Theme:	Understanding whale shark demographics in various places	Chair: Mark Meekan
12:20-12:35	Ningaloo whale sharks - history and a holistic view	Geoff Taylor
12:35-13:35	Lunch	
13:35-13:50	A review of threats to whale sharks in the Arabian Gulf and the Sea of Oman	David Robinson
13:50-14:05	The whale shark in the Americas	Deni Ramirez Macias

14:05-14:20	Philippines: a global hotspot for the world's largest fish Gonzalo Araujo	
	Connecting the dots: using multiple methods to understand whale shark ecology in the	
14:20-14:35	Red Sea and beyond	Michael Berumen
14:35-14:50	Using citizen science to reveal trends in whale shark sightings in Hawaii	Stacia Marcoux
14:50-15:05	Population ecology and habitat use of whale sharks off Nosy Be, Madagascar	Stella Diamant
	Whale shark monitoring in Botubarani Beach Bone Bolango Regency Gorontalo Province,	
15:05-15:20	Indonesia	Sukirman Tilahunga
Theme:	A taste of Ningaloo	Chair: Peter Barnes
	The whale shark aggregation at Ningaloo Reef, Western Australia is 'bucking' the global	
15:20-15:35	trend downwards for this ENDANGERED species	Brad Norman
15:35-16:05	Break	
16:05-16:20	The key approach to whale shark interaction management	Emily Wilson
	Using an electronic monitoring system and photo-identification to understand effects of	
16:20-16:35	tourism encounters on whale sharks in Ningaloo Marine Park	Holly Raudino
	The use of ecotourism to monitor scarring patterns, apparent survival and residency of	
16:35-16:50	whale sharks aggregating at the Ningaloo Reef, Western Australia	Emily Lester
16:50-17:05	Understanding the link between the oceanography and the whale sharks of Ningaloo Reef	Paul Thomson
17:05-17:20	The bio-physical drivers of the 3D movements of whale sharks at Ningaloo Reef	Michele Thums
17:20-17:35	Movement and diving behaviour of whale sharks tagged at Ningaloo Reef	Richard Pillans
17:35-19:30	Poster session - see below	Venue: Tantabiddi Travelling Gallery

## Wednesday, 29th May 2019

All day	Woodside Day on the Water	Pick up from your accommodation
From 5pm	Profs & Pints - public presentation evening	Venue: Whalebone Brewing Company

## Thursday, 30th May 2019 Mandu Mandu Function Centre

08:00-08:15	Coffee	
08:15-08:20	Housekeeping	Mark Meekan
08:20-09:15	Key Note: Tracking the lives of pelagic sharks in a changing world	David Sims
Theme:	Movement and Tracking I	Chair: Simon Pierce

09:20-09:35 Palawan, Philippines  09:35-09:50 Residency and patterns in habitat use of whale sharks at Mafia Island, Tanzania  Analyzing passive acoustic data from whale shark aggregations: a comprehensive review of  09:50-10:05 two papers  Vertical movements and temperature preference of the whale shark in the Galapagos  10:05-10:20 Marine Reserve, through the use of SPOT satellite transmitters  10:20-10:50 Break  Theme: Movement and Tracking II  Characterisation of fine-scale feeding behaviour of whale sharks at Ningaloo Reef from tri-  10:50-11:05 axil accelerometer and video data  11:05-11:20 Investigating links between vertical and horizontal movement patterns of whale sharks  Lucy Arrowsmith
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Preliminary study of whale shark occurrences and association with zooplankton biomass in
11:20-11:35 Saudi Arabian waters of the Arabian Gulf Hua Hsun Hsu
11:35-11:50 Horizontal movement patterns of whale sharks in the North-Western Indian Ocean Charan Kumar Paidi
Whale sharks in a warming ocean: the implications of climate change for movement
11:50-12:05 patterns and suitable habitat Samantha Reynolds
12:05-12:20 Movements of real time satellite tagged whale sharks, from Isla Mujeres, Mexico Rafael de la Parra
Fathoms below: vertical movements and diving patterns of whale sharks in West Papua,
12:20-12:35 Indonesia Megan Meyers
12:35-13:35
Theme: Biology/Ecology Chair: Brad Norman
The evolution of gigantism in filter-feeding marine vertebrates: lessons from the world's
13:35-13:50 largest fish Mark Meekan
13:50-14:05 Are whale sharks social animals? A perspective from the Djibouti aggregation David Rowat
Comparing length-measurement methods and estimating growth parameters of free-
14:05-14:20 swimming whale sharks near the South Ari Atoll, Maldives Cameron Perry
Enhancing insights into foraging specialisation by whale sharks using a multi-tissue, multi-
14:20-14:35 isotope approach Alex Wyatt

	Thermoregulatory behavior of whale sharks to extreme temperatures in the Arabian Gulf –	
	, and the second se	
14:35-14:50	is one of the world largest aggregation sites threatened by global warming?	Steffen Bach
	Where'd all the whale sharks go? Discussing dramatic declines in aggregation attendance	
14:50-15:05	within the Red Sea	Royale Hardenstine
	First ever observation of ovary in Galápagos whale sharks made using underwater	
15:05-15:20	ultrasonography	Rui Matsumoto
15:20-15:35	Relationship between the water temperature and heart rate of captive whale sharks	Kiyomi Murakumo
15:35-16:05	Break	
Theme:	Biology/Ecology II	Chair: Simon Pierce
16:05-16:20	Fine scale whale shark behaviour	Eugenio de la Parra
	A Tale of Three Bays: comparison of movement patterns of three whale shark populations	
16:20-16:35	in eastern Indonesia	Abraham Sianipar
	Characterising behaviours of the worlds largest shark through the application of machine	
16:35-16:50	learning algorithms	Darren Whitehead
	Health assessment of whale sharks facilitated by bagan fishery interaction in Cenderawasih	
16:50-17:05	Bay, Indonesia	Alistair Dove

# Friday, 31st May 2019

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08:00-08:25	Coffee	
08:25-08:30	Housekeeping	Mark Meekan
Theme:	Genetics	Chair: Jennifer Schmidt
08:30-08:45	Population genetic analysis of the whale shark	Jennifer Schmidt
	Infering global population structure of whale sharks using target capture on environmental	
08:45-09:00	water samples	Mads Jensen
09:00-09:15	Whale shark skin microbiomes reflects host genetic similarities	Michael Doane
	Using Close-Kin Mark-Recapture to estimate the abundance and survival rates of adult	
09:15-09:30	whale sharks	Rich Hillary
09:30-09:45	Visual ecology of whale shark revealed by whole genome sequencing	Shigehiro Kuraku
	Connecting the dots: genetic characterisation of the worlds' most remote whale shark	
09:45-10:00	aggregation	Alexandra Watts

	Community perspectives and pertable seguencers for systemable whale shark	
10.00 10.15	Community perspectives and portable sequencers for sustainable whale shark	Chaili Iahai
10:00-10:15	conservation in India	Shaili Johri
	Population genetic structure of the whale shark along the Indian coast using mitochondrial	
10:15-10:30	and nuclear markers	Bheem Dutt Joshi
10:30-11:00	Break	
Theme:	Health	Chair: David Rowat
11:00-11:15	Microplastics a macro-disaster: a threat to the largest fish of our seas?	Ibrahim Shameel
11:15-11:30	Plastics on the menu: microplastics present in Indonesian whale shark feeding grounds	Elitza Germanov
11:30-11:45	Bioaccumulation of trace elements in whale shark tissues of the Gulf of California	Francesca Pancaldi
11:45-12:00	Monitoring shark health with the skin microbiome	Elizabeth Dinsdale
12:00-12:15	The biggest fish in the ocean: can we unravel the mystery with biochemistry?	Clare Prebble
12:15-12:20	Closing remarks: oral presentations	Mark Meekan
12:20-13:00	Lunch	
	Workshops	
	Managing the impacts of tagging on whale sharks - balancing science, welfare,	
13:00-15:00	conservation and tourism	Parks and Wildlife WA
13:00-15:00	Using stable isotopes to understand whale shark ecology	CSIRO
15:00-15:30	Break	
15:30-17:30	Can we determine sustainable levels of tourism?	Parks and Wildlife WA
	Kin based population genetics; potential for deeper understanding of whale shark	
15:30-17:30	populations	CSIRO
17:30	Conference close: delegates own time	

Tuesday 28t		
17:35-19:30	Poster session	
1	Differentiation of euphausiid and fish prey in foraging grounds used by Whale sharks and	
1	Omura's whales off Madagascar	Andrew Brierly / Stella Diamant
2	Marooned: a trapped whale shark in Nukunonu Atoll, Tokelau	Brad Norman

	3	Whale shark strandings in the Gulf of California, Mexico	Darren Whitehead
	4	Isotopic assessment of whale sharks from two geographical sites: Gulf of California and the	
	·	Mexican Caribbean	Darren Whitehead
	5	Key elements for managing whale shark tourism in the Gulf of California	Deni Ramirez Macias
	6	Whale shark retinal pigments and visual foraging ecology	Katherine Serba
	7	St Helena Island, a Bone shark paradise	Kenickie Andrews
	8	Whale sharks target dense copepod patches in Southern Leyte, Philippines	Lucia Sanabria / Ariana Agustines
	9	Whale shark individual photo-identification in Mexico largest aggregation	Rafael de la Parra
·	10		Rossana Maguiño Napurí / Deni Ramirez
		New insights into the presence of whale sharks off northern Peru	Macias
-	11	From fish to flagship: 15 years of whale shark conservation, case study from India	Charan Kumar Paidi
<u> </u>	12	In situ estimates of the prey field of whale sharks via animal mounted sonar tags	Heather Vance / Mark Meekan
2	13	Is the world's largest fish a herbivore?	Patti Virtue / Mark Meekan
	1.4	Whale Shark's (Rhincodon typus) Occurrence, Bycatch & Conservation Efforts in	
-	14	Bangladesh Marine Territory	Zahirul Islam
3	15	Spatial Analysis of Plankton Community and Nutrients in Coastal Environment of Mozambique	Holly Kelchner (absent)
		mozamorque.	Tiony Retermer (absency