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## WELCOME TO HOBART

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We would like to welcome everyone to the lovely city of Hobart. It has been 10 years since ASFB last held its conference in Hobart, at which time OCS had only just been established. It is fantastic that this year sees the second joint ASFB & OCS conference.

We would like to thank everyone for travelling to Hobart for this special event. In particular, those who have flown in from overseas to participate in this year's event, with 8 countries represented. It is also great to see that more than 75 students are attending this year's event. It is going to be a busy 3 days with 225 presentations across a broad range of disciplines and some fantastic social events.

We would like to thank the various committees who have helped make this event happen: the local organising committee, the scientific committee, women in ichthyology committee, the student committee and the executive committees of the two societies. A special thanks also to ASN for its efforts.

We hope everyone enjoys the conference and beautiful Hobart!

### *Conference Chairs*

**Sean Tracey**



**Heidi Pethybridge**



**Will White**



On behalf of the Australian Society for Fish Biology Executive Committee, I welcome you to our 2016 joint conference with the Oceania Chondrichthyan Society, and sincerely thank Sean Tracey and co-Chairs Heidi Pethybridge and Will White for organizing this meeting in fabulous Hobart, Tasmania!

In helping us explore Intersections in Fish & Fisheries Science, the conference scientific committee have designed interactive sessions that encourage collaboration across our societies, biomes, and disciplines. In sharing our new knowledge, understandings, tools and approaches to complex problems, we are encouraging you to find new ways to integrate and draw upon the amazing diversity encompassed in our conference delegates.

Several special events at our conference this year are celebrating this diversity in fish and fisheries. Through our Incredible Women of Ichthyology exhibition, world-class keynote talks, and an open discussion forum for all genders, we explore the various pathways, challenges and triumphs that women experience in forging their career in fish and fisheries. We also have an exciting speed talk session for our students, which is the final part of our new student competition in science communication organised by Steve Beatty, Stacey Bierwagen and Jordan Matley. Please join us in celebrating the achievements of these outstanding role models for our aspiring fish and fisheries scientists and managers.

I hope this stimulating environment will foster many interesting discussions and collaborations now, and into the future.

**Dr Chris Fulton**

*President, Australian Society for Fish Biology*



On behalf of the Ocean Chondrichthyan Society (OCS), I'd like to warmly welcome all OCS and ASFB members to the second joint meeting of our two sister societies. As many, if not most OCS members are also members of the ASFB, these joint meetings are an excellent opportunity for members to reconnect with colleagues and friends from both societies, and to establish new networks and potential collaborations. This meeting boasts a particularly exciting and jam-packed schedule with a huge diversity of scientific content. As a small specialist society, these joint meetings provide OCS members with invaluable opportunities to connect with the broader scope of research that provides the vital context to our focal work on chondrichthyan fishes – and the scope of our profession. In this regard, this meeting is especially significant in that it opens with a celebration of our leading women in ichthyology and a discussion about gender equity in science, an issue OCS members raised with the executive over a year ago. It is incredibly rewarding to see this theme being taken on board and placed as the opening session at our second joint meeting.

Maintaining our broader professional awareness and networks is so important that in reality, the OCS only has one independent conference every four years, with the remaining three years being joint conferences (e.g. joint with ASFB in 2012; joint with the New Zealand Marine Sciences Society in 2015), or suspended years when we invest our support in sending students to international events like the Indo-Pacific Fish Conference. While it is somewhat cliché to comment on the valuable opportunities these events provide to students and early career researchers, it's cliché because it really is true.

For many students, this will be their first scientific meeting, and I know that everyone who remembers their first scientific conference will make special efforts to welcome them into our profession. On that note, I would like to specifically thank the Save our Seas Foundation and Great Barrier Reef tourism operator Passions of Paradise for providing the travel grants that funded several OCS students, making it possible for them to attend this event.

I would also like to personally thank our key ASFB counterparts who have worked extremely hard in organising this event - Sean Tracey and Heidi Pethybridge – your efforts are greatly appreciated! I hope that all OCS and ASFB delegates have an extremely successful conference, and make the most of this opportunity to reconnect, collaborate, and develop the new ideas that will advance our field for years to come. Best wishes everyone.

**Dr Andrew Chin**

*President, Oceania Chondrichthyan Society*



# We collaborate to innovate



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We conduct research to ensure the protection, conservation and sustainable management of the marine and atmospheric environment in partnership with local and global institutions.

## DELEGATE INFORMATION

### VENUE

#### Wrest Point

410 Sandy Bay Road, Sandy Bay  
Tasmania, 7005

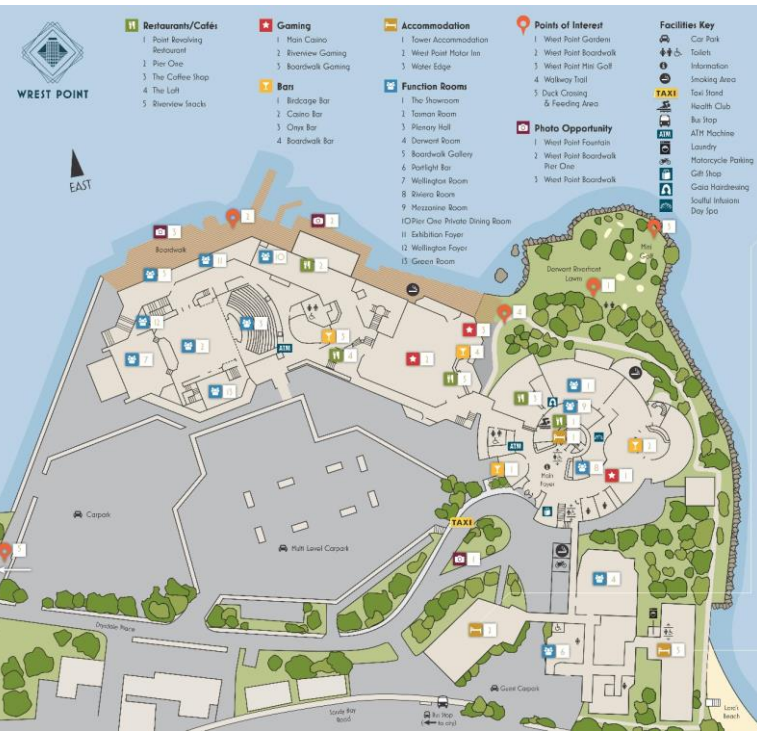
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Email: [guestservices@wrestpoint.com.au](mailto:guestservices@wrestpoint.com.au)

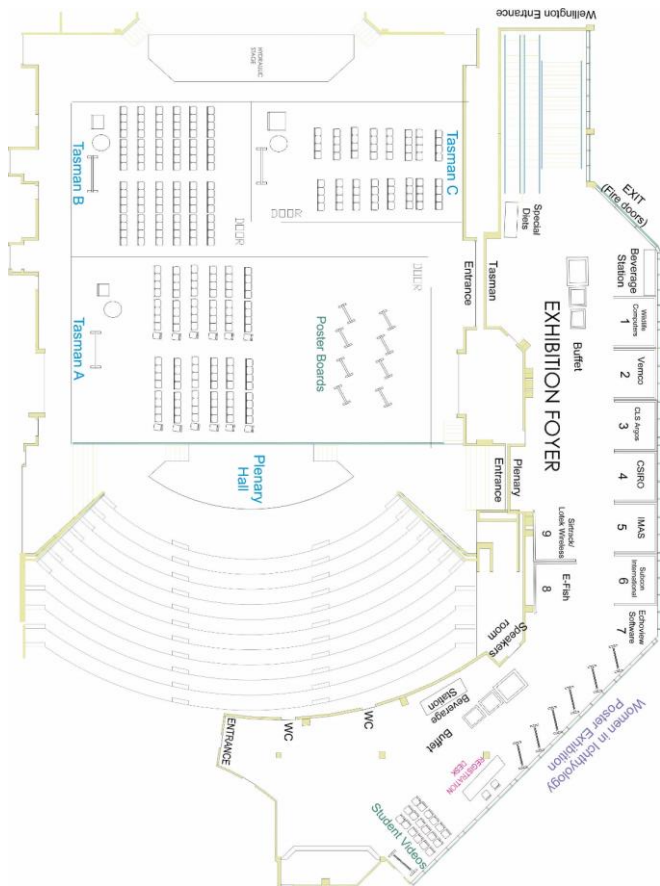


### MAP OF WREST POINT AND SURROUNDINGS





# MAP OF EXHIBITION FOYER AND TASMAN ROOMS



## CONFERENCE WEB APP

The official **ASFB-OCS 2016** web based app will keep you organised during the meeting.

You can view:

- An up-to-date daily program
- Speaker abstracts
- Speaker bios
- Venue maps
- Sponsors & Exhibitors
- Update your profile information



**Downloading the ASFB OCS 2016 Conference Mobile App is easy!**

### INSTRUCTIONS FOR APPLE DEVICES

**Step 1:** Open [asfb-2016.m.asnevents.com.au](http://asfb-2016.m.asnevents.com.au) in your browser or use the above QR code.

**Step 2:** Tap the 'share icon' at the bottom centre of your screen then 'Add to Home Screen' – the conference icon will appear on your home screen for quick access.

### INSTRUCTIONS FOR ANDROID DEVICES

**Step 1:** Open [asfb-2016.m.asnevents.com.au](http://asfb-2016.m.asnevents.com.au) in your browser or use the above QR code.

**Step 2:** Select the menu button, and add the page to your **bookmarks**. Then open your bookmarks using the menu button, and find the new bookmark you've just added. Press down and hold on the bookmark until you see an action menu. Select Add to homescreen - the conference icon will appear on your home screen for quick access.

For further assistance, please see staff at the registration desk

## ORGANISER'S OFFICE – ASN EVENTS

The conference registration desk, located in the Wrest Point Exhibition Foyer, will operate as per the times listed below:

<b>Sunday:</b>	<b>5:00 pm – 8:00 pm</b>
<b>Monday, Tuesday &amp; Wednesday:</b>	<b>8:00 am – 5:30 pm</b>

All conference related enquires should be directed to ASN Events staff at this desk. Accommodation queries should be directed to the relevant hotel reception desk.

## SOCIAL PROGRAM

### WELCOME FUNCTION

**Time:** 6:00 pm

**Date:** Sunday 4th September

**Venue:** Exhibition Foyer, Wrest Point

### WELCOME TO TASMANIA - GOVERNMENT HOUSE RECEPTION

**Time:** 6:00 pm - 7:00 pm

**Date:** Monday 5th September

**Venue:** Government House

**Dress Code:** Smart Casual

*Buses will depart from Wrest Point at 5:30 pm*

### STUDENT-MENTOR MIXER

**Time:** 6:00 pm - 8:30 pm

**Date:** Tuesday 6th September

**Venue:** The Metz, Sandy Bay

### CONFERENCE DINNER

**Time:** 6:00 pm (MR-1 Ferry departs Wrest Point)

**Date:** Wednesday 7th September

**Venue:** MONA (Eros and Thannos Rooms)

*MR-1 Ferry will depart from Wrest Point (Pier One) at 6:00pm*

*Please note the conference dinner is not included in the full registration and is an additional cost.*

## WOMEN IN ICHTHYOLOGY

At the 2016 ASFB-OCS Conference in Hobart, we will showcase some of the many women who have made outstanding contributions to fish & fisheries throughout Australasia. On the opening day of the conference we will host a special **Women in Ichthyology** session, where we will hear from **six keynote speakers**, spanning the early to established career spectrum, who will share their exemplary research and diverse career pathways in fish and fisheries. Immediately following the keynotes will be a panel discussion to explore how people of all genders can work to overcome gender bias and inequity in fish and fisheries. Concurrently, we will have a **poster exhibition** highlighting the career achievements of some of the many women who have been recognized by the ASFB for their excellent contributions to our field.

## STUDENT COMPETITION IN SCIENCE COMMUNICATION

Delegates are reminded to get along to view and help judge the Student Rapid stand-up presentation session of the inaugural SCiSC that will be held from 4:00pm on Tuesday 6<sup>th</sup> September. Also, pause a while anytime during the conference to view the excellent short videos that were submitted as part of the SCiSC. They will be playing on a loop in the foyer next to the registration desk.

## ANNUAL GENERAL MEETINGS

All society members are encouraged to attend their respective AGMs. The OCS AGM will be held during the lunch break on Tuesday 6th September. The ASFB AGM will be held during the lunch break on Wednesday 7th September, both in the Plenary Hall. A lunch buffet station will be prioritised for those attending the AGMs so attendees can quickly grab their lunch and swiftly return to the Plenary Hall for the meetings.

## SPEAKER PREPARATION INSTRUCTIONS

It is the conference preference that ALL presentations be pre-loaded onto the room relevant laptop in the Speaker Preparation Room. Volunteers will be present to assist you. Please bring your presentation to the meeting on a USB drive and load your presentation well in advance of the session you are participating in to allow for timely loading and testing. Audio-visual

equipment will be supplied and there will be one technician on site in the Plenary Hall to assist with any enquires.

## **DISPLAYING YOUR POSTER**

Please affix your poster to the allocated board before 11:00am on Monday 5<sup>th</sup> September ready for the poster viewing during Monday lunch time. Posters should be taken down no later than 4:00pm on Wednesday 7<sup>th</sup> September. Posters remaining after this time will be removed by conference staff.

Posters should be attached to the boards using the Velcro provided. Please visit the conference registration desk if you require additional supplies.

## **NOTICEBOARD**

Notices may be placed by delegates and trade participants on the board outside the main trade display. Inappropriate material will be removed.

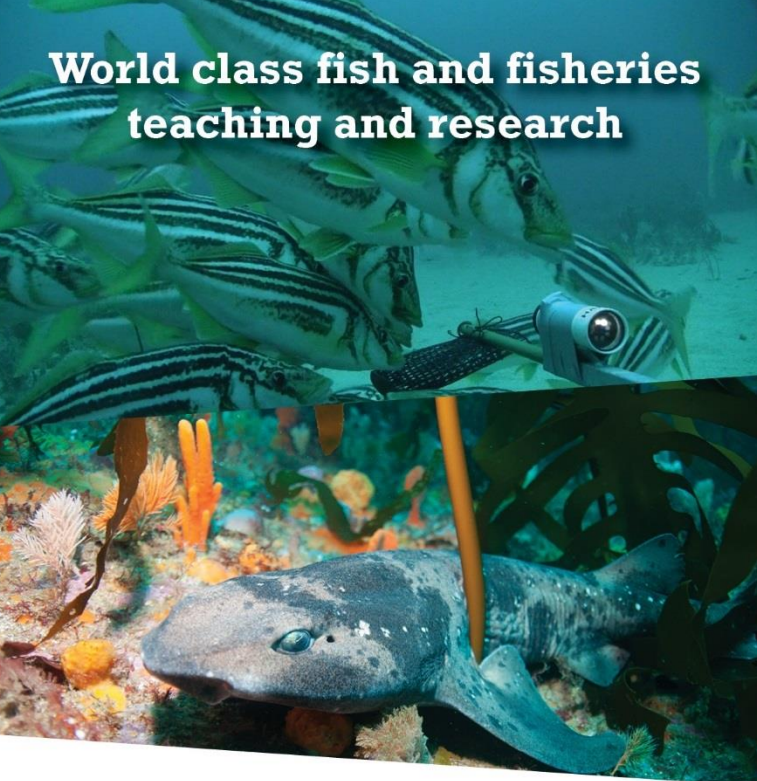
## **RECYCLING YOUR NAME BADGES AND LANYARDS**

If you do not wish to keep your name badge at the conclusion of the conference, please return it to the conference registration desk for recycling.

## **INTERNET ACCESS**

Free Wi-Fi is available to conference delegates. Please connect to the wireless network named '**Wrest Point Free WiFi**' a welcome screen will automatically appear if supported by your device, if not simply open your web browser and accept the terms and conditions. You will then be redirected to the Wrest Point Website for navigation.

# World class fish and fisheries teaching and research



The University of Tasmania is committed to working towards the Athena SWAN Charter's principles on the advancement of women's careers in STEMM disciplines.



UNIVERSITY of  
TASMANIA



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## INVITED SPEAKERS

### DAVID BELLWOOD

*James Cook University*

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### BRONWYN GILLANDERS

*University of Adelaide*

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### GRETCHEN GRAMMER

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### MICHELLE HEUPEL

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*CIRSO National Research Collections Australia*

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### KARA YOPAK

*University of Western Australia*

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Sunday 4th Sept	
Room	Exhibition Foyer
17:00	Registration opens
18:00	<b>Women in Ichthyology Poster Exhibition Opens</b>
19:00	
20:00	Welcome Reception & Ice-breaker

Monday 5th Sept				
Room	Plenary	Tasman A	Tasman B	Tasman C
8:30	Welcome Address			
9:00	Rapid Keynotes Women in Ichthyology			
9:30				
10:00				
10:20	Morning Tea			
10:50	Rapid Keynotes Women in Ichthyology			
11:30	Women in Ichthyology (Panel Discussion)			
12:00				
12:20	Lunch & Poster Session			
13:00				
13:20	Fish movement and population connectivity	Early life history of fishes: implications for conservation and management	Trophic ecology, habitats and ecosystem modelling	Biology, Ecology and Behaviour
14:00				
14:50	Afternoon Tea			
15:20	Fish movement and population connectivity	Early life history of fishes: implications for conservation and management	Trophic ecology, habitats and ecosystem modelling	Biology, Ecology and Behaviour
16:00				
17:05				
17:30	Bus departs Wrest Point			
18:00	Government House Reception			
19:00				



	Tuesday 6th Sept			
Room	Plenary	Tasman A	Tasman B	Tasman C
8:45	Plenary			
9:30				
10:00	Fish movement and population connectivity	Biology, Ecology and Behaviour	Trophic ecology, habitats and ecosystem modelling	Recreational and commercial fisheries
10:30				
11:00	Morning Tea			
11:30	Fish movement and population connectivity	Fish research in action	Trophic ecology, habitats and ecosystem modelling	Physiology
12:00				
12:30				
13:00	Lunch & OCS AGM			
13:30				
14:00	Fish movement and population connectivity	Fish research in action	Biology, Ecology and Behaviour	Physiology
14:30				
15:00				
15:30	Afternoon Tea			
16:00	Rapid Student Talks			
17:00				
18:00	Student-Mentor Mixer			
19:00				
20:00				

Wednesday 7th Sept				
Room	Plenary	Tasman A	Tasman B	Tasman C
8:45	Plenary			
9:30	Plenary			
10:00	Fish evolution, phylogeny and systematics	Monitoring and observing systems, environmental data and applications to fish and fisheries	Recreational and commercial fisheries	The emergence of socio-ecology in fish and fisheries research
10:30				
11:00	Morning Tea			
11:30	Fish evolution, phylogeny and systematics	Monitoring and observing systems, environmental data and applications to fish and fisheries	Recreational and commercial fisheries	The emergence of socio-ecology in fish and fisheries research
12:00				
12:30				
13:00	Lunch & ASFB AGM			
13:30				
14:00	Fish movement and population connectivity	Monitoring and observing systems, environmental data and applications to fish and fisheries	Recreational and commercial fisheries	Invasive species: impacts, detection and control
14:30				
15:00				
15:30	Afternoon Tea			
16:00	Fish movement and population connectivity	Monitoring and observing systems, environmental data and applications to fish and fisheries	Threatened species	Invasive species: impacts, detection and control
17:00				
18:00	Ferry departs Wrest Point			
19:00				
20:00	Conference Dinner at MONA			
21:00				
22:00				

**SUNDAY 4TH SEPTEMBER 2016**

**Registration Opens** Exhibition Foyer  
5:00pm - 8:00pm

**Welcome Function & Ice Breaker** Exhibition Foyer  
6:00pm - 8:00pm

**Women in Ichthyology Poster Exhibition Opens** Exhibition Foyer  
6:00pm

**MONDAY 5TH SEPTEMBER 2016**

**Registration Opens** Exhibition Foyer  
8:00pm - 5:00pm

**Welcome Address** Plenary Hall  
8:30am - 9:00am

**Rapid Keynotes Women in Ichthyology** Plenary Hall  
9:00am - 10:20am

9:00 AM **Bronwyn Gillanders**

Fish as proxies of ecological and environmental change [*abs# 1*]

9:20 AM **Kara Yopak**

Are Sharks Smart? Using Brain Anatomy to Understand Cognitive Ability in Cartilaginous Fishes [*abs# 2*]

9:40 AM **Gretta Pecl**

Climate change and marine systems [*abs# 3*]

10:00 AM **Jodie Rummer**

Past, present, and future: physiological performance of coral reef fishes in a changing world [*abs# 4*]

**Morning Tea** Exhibition Foyer  
10:20am - 10:50am

**Rapid Keynotes Women in Ichthyology** Plenary Hall  
10:50am - 11:30am

10:50 AM **Michelle Heupel**

Chasing sharks to change management [*abs# 5*]

11:10 AM **Gretchen Grammer**

Using biogeochemical tracers and sclerochronologies derived from fish otoliths to detect environmental change [*abs# 6*]

**Women in Ichthyology (Panel Discussion)** Plenary Hall  
11:30am - 12:20pm

*Chair: Bronwyn Gillanders*

**Panel:** Andrew Chin, Chris Fulton, Gretchen Grammer, Michelle Heupel, Gretta Pecl, Jodie Rummer, Kara Yopak

**Lunch & Poster Session**

Exhibition Foyer

12:20pm - 1:20pm

**Fish movement and population connectivity**

Plenary Hall

1:20pm - 2:50pm

*Chair: Michelle Heupel*1:20 PM **Malcolm Francis**

The summer super-highway: migration of oceanic fishes between New Zealand and the tropical South Pacific islands [abs#7]

1:35 PM **Jeremy Lyle**

Movement and behaviour of the endangered Maugean skate, *Zearaja maugeana*, in Macquarie Harbour, Tasmania [abs#8]

1:50 PM **David Moreno**

Space utilisation, movement and behaviour of the spiny dogfish, *Squalus acanthias*, in Macquarie Harbour, Tasmania. [abs# 9]

2:05 PM **Joe Scutt Phillips**

State-space modelling methods for telemetry data: an application to surface-association behaviours in tropical tuna [abs# 10]

2:20 PM **Ross Daley**

Simulation-based evaluation of reserve network performance for a vulnerable deep-sea shark [abs# 11]

2:35 PM **Sherrie Chambers**

Spatial orientation and magnetic alignment in Port Jackson sharks' [abs# 12]

**Early life history of fishes: implications for conservation and management**

Tasman A

1:20pm - 2:50pm

*Chair: Tony Miskiewicz*1:20 PM **Jeffrey Leis**

It works! Building a biophysical larval-fish dispersal model for the Great Barrier Reef based on empirical larval and adult behavior data...and testing it. [abs# 13]

1:35 PM **João Teixeira**

First excursions into the 'black box' period of the blackspot seabream *Pagellus bogaraveo*: a missing piece of a deep-sea life cycle puzzle [abs# 14]

1:50 PM **Victor Shelamoff**

Consequences of kelp habitat modification for the recruitment of cryptic reef fish [abs# 15]

2:05 PM **Gregory Jenkins**

Recruitment of Snapper, *Chrysophrys auratus*, in Port Phillip Bay depends on the match-mismatch of spawning period and production of preferred planktonic prey [abs# 16]

2:20 PM **Kate Burndred**

Early development of Eel-tailed catfish, *Tandanus* (Mitchell) (Teleostei: Plotosidae) from a subtropical Queensland stream, with validation of daily otolith increment formation [abs# 17]

2:35 PM **Claudio Castillo-Jordan**

From the other side of the Pacific Ocean: environmental indicators and recruitment of Grenadiers in Chile and Australia [abs# 18]

**Trophic ecology, habitats and ecosystem modelling** Tasman B

1:20pm - 2:50pm

*Chairs: Heidi Pethybridge & Jordan Matley*

1:20 PM **Beth Fulton**

Should we sweat the trophodynamic details? [abs# 19]

1:50 PM **Stacey McCormack**

Using stable isotope data to advance marine food web modeling [abs# 20]

2:05 PM **Romain Forestier**

Putting adaptive dynamics into food web models [abs# 21]

2:20 PM **Catherine Bulman**

The guts of ecosystem models: are they still needed and can new methods assist? [abs# 22]

2:35 PM **Thibaut de la Chesnais**

The role of cephalopods in ecosystems, the importance of modelling these species impact and ecology with groups of different habitats. [abs# 23]

**Biology, Ecology and Behaviour**

Tasman C

1:20pm - 2:50pm

*Chair: Alistair Hobday*

1:20 PM **Jess Morgan**

Novel real-time PCR developed to assess DNA degradation in archived tiger shark (*Galeocerdo cuvier*) skeletal material [abs# 24]

1:35 PM **Madeline Green**

Shark Share Global: a virtual tissue bank for collaborative elasmobranch research [abs# 25]

1:50 PM **Lucille Chapuis**

Effects of acoustic stimuli on the behaviour of wild and captive sharks [abs# 26]

2:05 PM **Brit Finucci**

Sperm storage in deep-sea holocephalans [abs# 27]

2:20 PM **Joshua van Lier**

Seaweed-associated fish communities are shaped by meadow quality and seascape context [abs# 28]

2:35 PM **David Ward**

Pump Screen Technology Uptake in Inland NSW – Major Projects [abs# 29]

**Afternoon Tea**

Exhibition Foyer

2:50pm - 3:20pm

**Fish movement and population connectivity**

Plenary Hall

3:20pm - 5:05pm

*Chair: Malcolm Francis*

3:20 PM **Michelle Heupel**

Species-specific: divergence in reef shark movement patterns [abs# 30]

3:35 PM **Samantha Munroe**

Spatial interactions and long-term coexistence of sharks in a tropical coastal embayment [abs# 31]

3:50 PM **Elodie Ledee**

Spatial and temporal patterns of habitat use by six shark species in inshore Environment [abs# 32]

4:05 PM **Amandine D Marie**

Empirical evidence of a large Scalloped Hammerhead Shark (*Sphyrna lewini*) nursery ground in the Rewa Delta, Fiji [abs# 33]

4:20 PM **Samantha Andrzejczek**

The ups and downs of the tiger shark – an up-close view of their behaviour [abs# 34]

**Early life history of fishes: implications for conservation and management**

Tasman A

3:20pm - 5:05pm

*Chair: John Keane*

3:20 PM **James Smith**

An evaluation of long-term monitoring of larval fish in eastern Australia [abs# 35]

3:35 PM **Tony Miskiewicz**

Comparison of fish larvae communities in a young versus an old frontal eddy of the East Australian Current in relation to possible source waters [abs# 36]

3:50 PM **Alison King**

Freshwater fish spawning linked to both wet and dry season flows in the wet-dry tropics of northern Australia [abs# 37]

4:05 PM **Gerry Closs**

Landscape-scale life-history gradients in New Zealand freshwater *Galaxias* Spp [abs# 38]

4:20 PM **Rhian Clear**

Spawning and recruitment of fish in response to environmental watering in the lower Lachlan River system. [abs# 39]

4:35 PM **Jonas Bylemans**

An environmental DNA based method for monitoring spawning activity: A case study using the endangered Macquarie Perch (*Macquaria Australasica*) [abs# 40]

4:50 PM **Lokman Norazmi**

Gravid spot: A surrogate for predicting progress of embryonic development and reproductive output in a live bearing fish (*Gambusia holbrooki*) [abs# 41]

**Trophic ecology, habitats and ecosystem modelling** Tasman B

3:20pm - 5:05pm

*Chairs: Heidi Pethybridge & Jordan Matley*

3:20 PM **Matt Rees**

The importance of habitat structural complexity in the assessment of marine reserve performance [abs# 42]

3:35 PM **Anna Cresswell**

Acute climate-mediated disturbances – the defining role in structuring coral reef futures? [abs# 43]

3:50 PM **Jessica Garcia**

Ecoregionalization of coral reef fish in New Caledonia using gradient forest modeling. [abs# 44]

4:05 PM **Lucy Wenger**

Microhabitat specialisation underpins coral-seaweed niche segregation in tropical reef fishes [abs# 45]

4:20 PM **Stacy Bierwagen**

Grey reef shark dependence to habitat characteristics and community composition in the central GBR [abs# 46]

4:35 PM **Christopher Goatley**

Fish function as a sensitive indicator of coral reef degradation [abs# 47]

4:50 PM **Robert P Streit**

Functional distinctions among browsing herbivorous fishes: reduced redundancy and the importance of large individuals [abs# 48]

**Biology, Ecology and Behaviour**

Tasman C

3:20pm - 5:05pm

Chair: Lauren Meyer

3:20 PM **Brooke D'Alberto**

Age, growth and maturity of oceanic whitetip shark (*Carcharhinus longimanus*) from Papua New Guinea [abs# 49]

3:35 PM **Michael Grant**

Age and growth of the silky shark *Carcharhinus Falciformis* from Papua New Guinea [abs# 50]

3:50 PM **Anne-Marie Hegarty**

Age and growth of teraglin, *Atractoscion aequidens* (Family: Sciaenidae) in New South Wales and their implications for fisheries management [abs# 51]

4:05 PM **Philip Sweetman**

Long term trends in juvenile blue grenadier *Macruronus novaezelandiae* otolith increment growth variability and fishing zone sex ratio on the west coast of Tasmania. [abs# 52]

4:20 PM **Cassandra Rigby**

Deepwater sharks and rays of the Great Barrier Reef: how vulnerable are they? [abs# 53]

4:35 PM **Mischa Turschwell**

Running out of stream. Drivers of occurrence and abundance in a thermally restricted headwater fish. [abs# 54]

4:50 PM **Karl Moy**

Variation in size-structure, diet and habitat use in the Darling hardyhead, *Craterocephalus amniculus* Crowley & Ivantsoff 1990, in the upper Macintyre River, northern Murray-Darling Basin [abs# 55]

**Bus Transfer to Government House**

5:20pm - 5:30pm

**Government House Welcome Reception**

6:00pm - 7:00pm



## TUESDAY 6TH SEPTEMBER 2016

### Opening comments

Plenary Hall

8:40am - 8:45am

### Keynote Presentation

Plenary Hall

8:45am - 9:45am

8:45 AM **William White**

Piecing together a living puzzle: biogeographic patterns in some shallow water sharks and rays in New Guinea [abs# 56]

9:15 AM **David Bellwood**

The role of fishes in the evolution and ecology of coral reefs [abs#57]

### Fish movement and population connectivity

Plenary Hall

10:00am - 11:00am

Chair: *Christine Dudgeon*

10:00 AM **Jo Day**

Fine-scale population structure and sex-biased dispersal of a highly philopatric coastal shark species [abs# 58]

10:15 AM **Thor Saunders**

Integrative approach to elucidating the population structure of coastal reef fish in northern Australia (Part I: Otolith chemistry) [abs# 59]

10:30 AM **Di Barton**

Integrative approach to elucidating the population structure of coastal reef fish in northern Australia (Part II: Parasite assemblages) [abs# 60]

10:45 AM **Laura Taillebois**

Integrative approach to elucidating the population structure of coastal reef fish in northern Australia (Part III: Genetics and summary) [abs# 61]

### Biology, Ecology and Behaviour

Tasman A

10:00am - 11:00am

Chair: *Jayson Semmens*

10:00 AM **Cynthia A Awruch**

Could capture stress affect future reproductive outcomes in elasmobranch species? A case study: the southern fiddler ray, *Trygonorrhina dumerilii*. [abs# 62]

10:15 AM **Hannah E Fogarty**

Are sightings of fish outside their usual ranges early indications of climate-driven range shifts or false alarms? [abs# 63]

10:30 AM **Kate S Hutson**

Interactions between cleaners and client fishes [abs# 64]

10:45 AM **Audrey Daning Tuzan**

How does metabolic phenotype and social interaction effect growth disparity of Spiny Lobster? [abs# 65]

**Trophic ecology, habitats and ecosystem modelling** Tasman B

10:00am - 11:00am

*Chairs: Heidi Pethybridge & Jordan Matley*

10:00 AM **Lara Marcus**

Trophic ecology of a whale shark aggregation at Ningaloo Reef (Western Australia), from stable isotope analysis [abs# 66]

10:15 AM **Katherine Burgess**

Mucus in elasmobranch dietary studies using stable isotope analysis: preliminary findings from the giant manta ray [abs# 67]

10:30 AM **Lauren Meyer**

Determining the functional limitations of using fatty acid profiles for diet determination with punch biopsies and degraded tissue samples [abs# 68]

10:45 AM **Sharon L Every**

Examining diet variation in euryhaline and coastal elasmobranchs using fatty acid and stable isotope biomarkers [abs# 69]

**Recreational and commercial fisheries** Tasman C

10:00am - 11:00am

*Chair: Sean Tracey*

10:00 AM **Andy Moore**

Developing robust and cost-effective methods for estimating the national recreational catch of southern bluefin tuna in Australia [abs# 70]

10:15 AM **Michael Smith**

Using ramp cameras to assess recreational fishing effort [abs# 71]

10:30 AM **Fabian Trinnie**

Improving the accuracy of recreational catch estimates with complementary surveys and auxiliary data on human dimensions [abs# 72]

10:45 AM **Jeremy Lyle**

Managing for change: The Tasmanian recreational fishery for rock lobster [abs# 73]

**Morning Tea** Exhibition Foyer

10:00am - 11:00am

11:30am - 1:00pm

Chair: *Michelle Heupel*

11:30 AM **Andrew Chin**

Crossing lines: a multidisciplinary framework for assessing migratory hammerhead sharks across jurisdictional boundaries [*abs# 74*]

11:45 AM **Kay Weltz**

Genetics: a vital tool for understanding connectivity and the ability of a threatened marine species (Maugean skate (*Zearaja maugeana*)) to withstand future challenges. [*abs# 75*]

12:00 PM **Pierre Feutry**

Inferring contemporary and long-term genetic connectivity from juveniles [*abs# 76*]

12:15 PM **Floriaan Devloo-Delva**

Genome wide SNPs reveal fine-scale population substructure in School Sharks (*Galeorhinus galeus*) collected from Australia and New Zealand waters. [*abs# 77*]

12:30 PM **Amelia Armstrong**

Microsatellites of megafauna: what does genetics tell us about Australian manta rays? [*abs# 78*]

12:45 PM **Safia Maher**

The Genetic Status of the Tiger Shark (*Galeocerdo cuvier*) in Australian Waters [*abs# 79*]

11:30am - 1:00pm

Chair: *Mike Steer*

*Session Sponsored by Murray Darling Basin Authority*

11:30 AM **Alistair Hobday**

Climate impacts and adaptation options for Australian fisheries 25 years of progress [*abs# 80*]

11:45 AM **Christopher Cvitanovic**

Key principles for undertaking marine research that enables knowledge exchange and evidence-based decision-making [*abs# 81*]

12:00 PM **Katie Ryan**

Evaluating how the Murray-Darling Basin Plan is helping native fish [*abs# 82*]

12:15 PM **Patrick Ross-Magee**

Using anglers to survey Murray cod: What's the catch? [*abs# 83*]

12:30 PM **Charles Todd**

What's the future for the small, threatened wetland fish *Nannoperca australis* (southern pygmy perch)? [abs# 84]

12:45 PM **Brendan Ebner**

Elevation and waterfalls structure fish assemblages in short steep-coastal streams [abs# 85]

**Trophic ecology, habitats and ecosystem modelling** Tasman B

11:30am - 1:00pm

Chair: Heidi Pethybridge

11:30 AM **Natasha Hardy**

At the junction where predators, temperate reefs and marine resource management interact [abs# 86]

11:45 AM **Jordan Matley**

Trophic ecology of coral trout: Is one sampling approach enough? [abs# 87]

12:00 PM **Johann Mourier**

Extreme inverted trophic pyramid of reef sharks supported by spawning groupers [abs# 88]

12:15 PM **Christopher Lawson**

The trophic impact of an estuarine pelagic fish: a bioenergetics approach [abs# 89]

12:30 PM **Adam Canning**

Trout in a New Zealand river: Disturbance of the trophic peace or not? [abs# 90]

12:45 PM **Sally Hatton**

Physical and biological changes during the filling of a temperate upland reservoir following its enlargement [abs# 91]

**Physiology** Tasman C

11:30am - 1:00pm

Chair: Gretta Pecl

11:30 AM **James Smith**

An alternative explanation for global trends in thermal tolerance [abs# 92]

11:45 AM **Geoffrey Collins**

Hypoxia tolerance in fish: assessing phenotypic diversity and temporal repeatability among populations [abs# 93]

12:00 PM **Christopher Fulton**

Efficiency and versatility underpin the global ecological success of a single fish genus in extreme coral reef habitats [abs# 94]

12:15 PM **Samantha Twiname**

Mechanistic understanding of climate driven range shifts: using thermal tolerances of rock lobster to predict future range shifts [abs# 95]

12:30 PM **Kayla Gilmore**

Is acclimation achievable? Long-term effects of combined hypoxia and temperature exposure on three freshwater fish. [abs# 96]

12:45 PM **Daniel Svozil**

Adaptive divergence in swimming performance and body shape of river and isolated reservoir populations of Australian smelt (*Retropinna semoni*) [abs# 97]

**Lunch**

Exhibition Foyer

1:00pm - 2:00pm

**OCS AGM**

Plenary Hall

1:00pm - 2:00pm

**Fish movement and population connectivity**

Plenary Hall

2:00pm - 3:30pm

Chair: Madeline Green

2:00 PM **Alan Couch**

Love between my brothers and my sisters, all over this river. [abs# 98]

2:15 PM **Tim Marsden**

How low do we go- the challenge of passing juvenile fish upstream in sub-tropical/tropical Australia. [abs# 99]

2:30 PM **Kate Hodges**

Cue but no follow- through: the challenge of movement opportunity in the northern Murray-Darling Basin [abs# 100]

2:45 PM **Lee Baumgartner**

Designing fishways for floodplain species of the Lower Mekong Basin [abs# 101]

3:00 PM **Peter Novak**

Migration phenology and biomass estimation of upstream migrating prawn (*Macrobrachium spinipes*) in a tropical north Australian river [abs# 102]

3:15 PM **Frank Amtstaetter**

Rehabilitating passage for migrating *Galaxias* (family: Galaxiidae) through a 70 m pipe-culvert [abs# 103]

2:00pm - 3:30pm

Chair: Scott Raymond

*Session Sponsored by Murray Darling Basin Authority*

2:00 PM **Chris Bice**

Science informs restoration of a fragmented ecosystem: a fish passage case study from an estuarine barrage [abs# 104]

2:15 PM **Anthony Townsend**

Fish need water: Developing and delivering flows for fish [abs#105]

2:30 PM **Iain Ellis**

Sometimes fish need more than water: Supporting flow management with complementary actions to enhance fish outcomes [abs# 106]

2:45 PM **Michael Hammer**

Bush Blitz fish surveys across remote northern Australia: scientific discovery, management outcomes and community engagement [abs# 107]

3:00 PM **John Koehn**

Harnessing ecological knowledge to inform fish-flow management [abs# 108]

3:15 PM **Stephen Beatty**

Dams, rainfall, fires and fish: the links and opportunities for building resilience. [abs# 109]

2:00pm - 3:30pm

Chair: Sean Tracey

2:00 PM **William White**

Sawfish in Papua New Guinea: what we know and where to next [abs# 110]

2:15 PM **Melissa Marquez**

Come find me: Defining habitats and habitat use for Chondrichthyans [abs# 111]

2:30 PM **Fabian Trinnie**

Reproductive cycle of *Urolophus cruciatus* in south-eastern Australia. [abs# 112]

2:45 PM **Catarina Vila Pouca**

Discrimination and generalisation learning of sound in sharks [abs# 113]

3:00 PM **Charlie Huvneers**

Contextually-specific variations in white shark activity measured by 3D-acceleration logger [abs# 114]

3:15 PM **Arnault Gauthier**

Morphology of the electrosensory system of three sympatric dasyatids from Moreton Bay. [abs# 115]

### Physiology

Tasman C

2:00pm - 3:30pm

*Chair: Samantha Twiname*

2:00 PM **Jodie Rummer**

Future ocean conditions and the development, physiology, and behaviour of shallow sharks [abs# 116]

2:15 PM **Connor Gervais**

Too hot to handle? The use of movement by a benthic elasmobranch species, *Hemiscyllium ocellatum*, to alleviate effects of elevated temperature. [abs# 117]

2:30 PM **Jayson Semmens**

Animal-borne video and accelerometers reveal high energy requirements of white shark breaching behaviour [abs# 118]

2:45 PM **Darcie Hunt**

Caudal fin aspect ratio as a predictor of maximum swimming speed [abs# 119]

3:00 PM **Joe Margraf**

Bioelectrical impedance analysis, not your granddaddy's condition factor [abs# 120]

3:15 PM **Tiffany Nay**

The intersection between fish physiology and behavior in regulating microhabitat use [abs# 121]

### Afternoon Tea

Exhibition Foyer

3:30pm - 4:00pm

### Rapid Student Talks

Plenary Hall

4:00pm - 5:00pm

*Chairs: Stephen Beatty & Stacy Bierwagen*

### Student-Mentor Mixer

The Metz

6:00pm - 8:30pm

*Awards Sponsored by Passion and Save our Seas*

**WEDNESDAY 7TH SEPTEMBER 2016****Opening comments** Plenary Hall

8:40am - 8:45am

**Keynote Presentation** Plenary Hall

8:45am - 9:45am

8:45 AM **Heidi Pethybridge**

Global analyses of tuna diet and isotopes: moving from regional to macro-scale understanding of oceanic food webs [abs# 122]

9:15 AM **Patrick Lehodey**

Modeling of oceanic mid and high trophic levels with SEAPODYM [abs# 123]

**Fish evolution, phylogeny and systematics** Plenary Hall

10:00am - 11:00am

Chair: *William White*10:00 AM **Peter Cowman**

Fish Phylogenetics: Swimming into the 21st Century [abs# 124]

10:30 AM **Sharon Appleyard**

Population genomics &amp; taxonomy in Australasian fishes: the five Ws and one H (what, why, when, where, who and how) [abs# 125]

10:45 AM **John Pogonoski**

Australia's diverse eel fauna: a preliminary overview of their taxonomy and biogeography [abs# 126]

**Monitoring and observing systems, environmental data and applications to fish and fisheries** Tasman A

10:00am - 11:00am

Chair: *Rudy Kloser**Session Sponsored by Integrated Marine Observing System*10:00 AM **Ana Lara-Lopez**

Long-term observing systems: what is on offer in Australia and can it improve my science? [abs# 127]

10:15 AM **Madeleine Cahill**

IMOS OceanCurrent web site [abs# 128]

10:30 AM **John Middleton**

Physics to fisheries: IMOS data enables. [abs# 129]



**Recreational and commercial fisheries**

Tasman B

10:00am - 11:00am

*Chair: Jeremy Lyle*10:00 AM **Craig Noell**Refining a Nordmøre-grid for the Spencer Gulf prawn-trawl fishery  
[abs# 130]10:15 AM **Owen Burnell**

Inter-annual and regional variation of fish in prawn trawl by catch: The importance of temporal replication for identifying potential trawl related impacts [abs# 131]

10:30 AM **Ben Scoulding**Methods for determining *in situ* target strength [abs# 132]10:45 AM **Ben Scoulding**

Variability in Atlantic mackerel target strength and its effects on acoustic abundance estimates [abs# 133]

**The emergence of socio-ecology in fish and fisheries research** Tasman C

10:00am - 11:00am

*Chair: Karen Alexander*10:00 AM **Stewart Frusher**

Transitioning to a brave new world: the need for, and challenge of, interdisciplinary research. [abs# 134]

10:15 AM **Kirsty Nash**

Feedbacks as a bridging concept for advancing transdisciplinary sustainability research [abs# 135]

10:30 AM **Bronwyn Gillanders**

Developing knowledge and tools to inform integrated marine management: Spencer Gulf as an Australian case study [abs# 136]

10:45 AM **Charlie Huveneers**

In the water with white sharks [abs# 137]

**Morning Tea**

Exhibition Foyer

11:00am - 11:30am

**Fish evolution, phylogeny and systematics**

Plenary Hall

11:30am - 1:00pm

*Chair: Michael Hammer*11:30 AM **Marianne Nyegaard**

A review of the Ocean Sunfishes (Family Molidae) in Australia and New Zealand, using genetics and fisheries by-catch data [abs# 138]

11:45 AM **Alan Couch**

Who's your mama? Riverine hybridization of threatened freshwater trout cod and Murray cod. [abs# 139]

12:00 PM **Emmanuelle Zoccola**

*Lates calcarifer* immune transcriptome reveals the Mincle C Type Lectin Receptor as a partial replacement for TLR4 in LPS recognition in fish [abs# 140]

12:15 PM **Christine Dudgeon**

Asexual reproduction in elasmobranchs: who needs claspers anyway? [abs# 141]

12:30 PM **Madeline Green**

Variability in multiple paternity rates for grey reef sharks (*Carcharhinus amblyrhynchos*) and scalloped hammerhead sharks (*Sphyrna lewini*) in Papua New Guinea [abs# 142]

12:45 PM **Diana Pazmino**

Population structure and phylogeography of the Galápagos shark (*Carcharhinus galapagensis*) across the Pacific. [abs# 143]

**Monitoring and observing systems, environmental data and applications to fish and fisheries**

Tasman A

11:30am - 1:00pm

Chair: *Patrick Lehodey*

*Session Sponsored by Integrated Marine Observing System*

11:30 AM **Rudy Kloser**

Using fishing vessels for basin-scale ecological monitoring using bio-acoustics and the continuous plankton recorder [abs# 144]

11:45 AM **Charitha Pattiaratchi**

Coastal ocean observations for fisheries [abs# 145]

12:00 PM **Craig Steinberg**

Physical oceanographic influences on tropical reef and continental shelf fish from IMOS observations. [abs# 146]

12:15 PM **Roland Proud**

A biogeography of the mesopelagic zone based on estimated myctophid biomass within Deep Scattering Layers [abs# 147]

12:30 PM **Rowan Trebilco**

New data and models to resolve ecosystem status and trends on the Kerguelen Axis in the Southern Indian Ocean [abs# 148]

12:45 PM **Alistair Hobday**

Looking into the future: seasonal to multi-year forecasts for fish and fisheries [abs# 149]

**Recreational and commercial fisheries**

Tasman B

11:30am - 1:00pm

Chair: *Emily Fisher*

11:30 AM **Lauren Veale**

Mulloway anglers or citizen scientists? [abs# 150]

11:45 AM **Hayden Schilling**

Aspects of the age, growth and reproductive cycle of tailor (*Pomatomus saltatrix*) in eastern Australia [abs# 151]

12:00 PM **Mike Steer**

A cracking new improvement in the daily egg production method: Using in situ hybridisation for discerning *Chrysophrys Auratus* eggs and larvae. [abs# 152]

12:15 PM **Jonathan Smart**

Stochastic demographic analyses of the silvertip shark (*Carcharhinus albimarginatus*) and the common blacktip shark (*Carcharhinus limbatus*) from the Eastern Indo-Pacific [abs# 153]

12:30 PM **Grant Johnson**

Catch composition of a traditional Indonesian shark fishery operating off north-western Australia [abs# 154]

12:45 PM **Tim Farrell**

Arthurs Lake – estimating the trout population size of a large impoundment fishery. [abs# 155]

**The emergence of socio-ecology in fish and fisheries research** Tasman C

11:30am - 12:45pm

Chairs: *Stewart Frusher & Kirsty Nash*

11:30 AM **Richard Cottrell**

Bridging the Land-Sea divide for future food security. [abs# 156]

11:45 AM **Karen Alexander**

Environmental and socio-political shocks to the seafood sector: what does this mean for resilience? Lessons from two case studies, Atlantic mackerel and Atlantic salmon [abs# 157]

12:00 PM **Shannan Crow**

Relationships between Maori freshwater values and flow: developing tools for incorporating cultural fisheries values into flow management decisions. [abs# 158]

12:15 PM **Erica Williams**

Creating outcomes for Maori communities and taonga freshwater fisheries through collaborative research partnerships [abs# 159]

12:30 PM **Roy Deng**

Development of a Harvest control rule (HCR) for Australia's Torres Strait tropical rock lobster (TRL) fishery [abs# 160]

**Socio-ecology Discussion Group**

Tasman C

12:45pm - 1:00pm

*Chairs: Stewart Frusher & Kirsty Nash*

**Lunch**

Exhibition Foyer

1:00pm - 2:00pm

**ASFB AGM**

Plenary Hall

1:00pm - 2:00pm

**Fish movement and population connectivity**

Plenary Hall

2:00pm - 3:30pm

*Chair: Jennifer Ovenden*

2:00 PM **Culum Brown**

Hangin in ya PJs: Social networks in Port Jackson sharks [abs# 161]

2:15 PM **Paul Rogers**

Crossing paths and time budgets: pelagic sharks and human activities in Spencer Gulf and the Great Australian Bight [abs# 162]

2:30 PM **Joe Scutt Phillips**

Using an individual-based simulation of kinesis, advection and movement behaviours in Pacific skipjack tuna to examine assumptions in stock assessment [abs# 163]

2:45 PM **Anthony Fowler**

Determining demographic processes responsible for dramatic changes in South Australia's snapper fisheries [abs# 164]

3:00 PM **Ash Fowler**

Partial migration of grey mullet (*Mugil cephalus*) on Australia's east coast revealed by otolith chemistry [abs# 165]

3:15 PM **David Crook**

Temporal and spatial variation in strontium in a tropical river: implications for otolith chemistry analyses of fish migration [abs# 166]

**Monitoring and observing systems, environmental data and applications to fish and fisheries** Tasman A

2:00pm - 3:30pm

*Chair: Ana Lara-Lopez*

*Session Sponsored by Integrated Marine Observing System*

2:00 PM **Stephanie Brodie**

Seasonal forecasting of dolphinfish distribution in eastern Australia to aid recreational fishers and managers [abs# 167]

2:15 PM **Stewart Frusher**

Creating win-win scenarios for longer term monitoring of the marine domain? [abs# 168]

2:30 PM **Neville Barrett**

Baited Underwater Video for an integrated monitoring network: Developing indicators and an appropriate national framework. [abs# 169]

2:45 PM **Sasha Whitmarsh**

Look out behind! Are additional cameras in baited video worthwhile? [abs# 170]

3:00 PM **Kim Holland**

Converging new technologies allow improved methods for tracking sharks and acquiring contemporaneous environmental data. [abs# 171]

3:15 PM **David Harasti**

Use of baited remote underwater video systems (BRUVs) to estimate presence and size of juvenile white sharks *Carcharodon carcharias* [abs# 172]

**Recreational and commercial fisheries** Tasman B

2:00pm - 3:30pm

*Chair: Jeremy Lyle*

2:00 PM **Lee Georgeson**

The evolution and influence of Commonwealth fishery and stock status reporting [abs# 173]

2:15 PM **Fay Helidoniotis**

The status of Australia's fish stocks in relation to the total catch and economic value [abs# 174]

2:30 PM **Kevin Rowling**

Twenty-Five Years of Quota Management of Australia's South East Fishery – Success or Failure? [abs# 175]

2:45 PM **Emily A Fisher**

Using MSC certification of a commercial and recreational crab fishery in Western Australia to achieve social licence [abs# 176]

3:00 PM **Athol Whitten**

Management Strategy Evaluation for a Multi-Sector Highly Variable Fishery: The South-East Australian 'Western' Snapper Stock [abs# 177]

3:15 PM **Morgan Pratchett**

Effects of climate change on coral trout and associated fisheries [abs# 178]

**Invasive species: impacts, detection and control** Tasman C

2:00pm - 3:30pm

Chair: *Ben Broadhurst*

2:00 PM **Nicholas Ling**

Establishment risk models highlight biosurveillance priorities for New Zealand lakes [abs# 179]

2:15 PM **Raihan Mahmud**

Characterisation and aetiology of Jelly-like gonad condition (JGC) in the common carp, *Cyprinus carpio* (L) [abs#180]

2:30 PM **Chris Boon**

The Capture of Invasive European Carp in Lake Sorell, Tasmania [abs# 181]

2:45 PM **Christopher Bowen**

Assessing maturity of Common Carp (*Cyprinus carpio*) in Lake Sorell to determine spawning capability and susceptibility to varied fishing techniques. [abs# 182]

3:00 PM **Jonah Yick**

The shift in behaviour of European carp in Lake Sorell, Tasmania [abs# 183]

3:15 PM **Grant Tempero**

Sustained Exclusion of Koi Carp (*Cyprinus carpio*) from Lake Ohinewai, New Zealand [abs# 184]

**Afternoon Tea**

Exhibition Foyer

3:30pm - 4:00pm

**Fish movement and population connectivity**

Plenary Hall

4:00pm - 5:00pm

*Chair: David Crook*4:00 PM **David Roberts**

Application of an acoustic positioning array to investigate 3 dimensional habitat utilisation by an air breathing fish (*Neoceratodus forsteri*) in a seasonally stratified riverine impoundment. [abs# 185]

4:15 PM **David Ikedife**

Understanding eel behaviour to aid the development of downstream migration options for short-finned eels [abs# 186]

4:30 PM **Zeb Tonkin**

Will they stay or will they go? The occupancy and population dynamics of Murray cod in a cold-water impacted River [abs# 187]

4:45 PM **John Morrongiello**

Did the fish cross the road, and if so, why? [abs# 188]

**Monitoring and observing systems, environmental data and applications to fish and fisheries**

Tasman A

4:00pm - 5:00pm

*Chair: Brendan Ebner**Session Sponsored by Integrated Marine Observing System*4:00 PM **Leanne Currey**

More sharks in the north: Shark diversity and abundance along the Great Barrier Reef [abs# 189]

4:15 PM **Craig Boys**

Opening the floodgates to fish and prawn recovery in a temperate coastal wetland. [abs# 190]

4:30 PM **Matthew Beitzel**

Native fish use of engineered habitats [abs# 191]

4:45 PM **David Hohnberg**

Fish community condition in the Koondrook-Perricoota Forest, a large lowland river floodplain forest [abs# 192]

**Threatened species**

Tasman B

4:00pm - 5:00pm

*Chair: Mark Lintermans*4:00 PM **Mark Lintermans**

Stairway to heaven or highway to hell: the pathway to recovering threatened freshwater fish in Australia. [abs# 193]

4:15 PM **Stephen Balcombe**

Genetic structure and effective population size of the river blackfish in their most northern catchment suggests their long term population viability is threatened [abs# 194]

4:30 PM **Peter Unmack**

Emergency efforts to conserve Running River Rainbowfish from extinction [abs# 195]

4:45 PM **Peter Unmack**

Are specific populations of key threatened MDB fishes native or introduced? [abs# 196]

**Invasive species: impacts, detection and control** Tasman C

4:00pm - 5:00pm

Chair: *Nicholas Ling*

4:00 PM **Jawahar Patil**

Trojan Y genetic control of the invasive fish *Gambusia holbrooki*: rationale, progress, challenges and management realities. [abs#197]

4:15 PM **Leigh Thwaites**

Understanding and managing Common Carp (*Cyprinus carpio* L.) in the Glenelg River, Victoria, Australia. [abs# 198]

4:30 PM **Brendan Hicks**

Response of size and abundance of redfin perch to successive removals [abs# 199]

4:45 PM **Ben Broadhurst**

Alien fish response to enlargement of a temperate reservoir [abs# 200]

**Ferry Depart from Wrest Point to MONA**

5:50pm - 6:00pm

**Conference Dinner**

MONA

7:00pm - 11:00pm

*Proudly Sponsored by Subcon International*

**1st Trip from MONA return to Wrest Point**

9:30pm

**2nd Trip from MONA return to Wrest Point**

11:10pm





# What do all these species have in common?

You can find out more about them all in the one place.

The Murray–Darling Basin Authority and the Atlas of Living Australia have combined to create a basin-specific website with data for a range of species and wetlands.

You can search the site by species, wetlands, basin catchment or datasets.

Check it out at [mdba.ala.org.au](http://mdba.ala.org.au)

2016 conference sponsor

### **Asia Armstrong**

Prey density threshold and tidal influence on reef manta ray foraging at an aggregation site on the Great Barrier Reef [abs# 201]

### **Hannah Ashe**

Ecology of marine cleaning stations used by *Manta alfredi* in Ningaloo Reef, Western Australia [abs# 202]

### **Nathan Beerkens**

Physiological and ecological responses of an estuarine fish to fluctuating temperature and oxygen concentration [abs# 203]

### **Curtis Champion**

Climate-driven range shifts in fishes and the impacts on temperate marine ecosystems [abs# 204]

### **Ebony Coote**

Using Commonwealth environmental water to benefit native fish in the Murray-Darling Basin [abs# 205]

### **Sharon Every**

Trophic niches of euryhaline and coastal elasmobranchs in northern Australia [abs# 206]

### **Brit Finucci**

Specialized diet of the deep-sea elasmobranch, the prickly dogfish (*Oxynotus bruniensis*) [abs# 207]

### **Karin Gerhardt**

Sharks, culture and conservation: recognizing the value of Indigenous knowledge and cultural dimensions of sharks and rays [abs# 208]

### **Bronwyn Gillanders**

Evaluating the use of strontium isotopes ( $^{87}\text{Sr}/^{86}\text{Sr}$ ) to unravel habitat use and life history movements of estuarine and freshwater fish in South Australian estuaries [abs# 209]

### **Dennis Heinrich**

Shark cognition and its implication towards wildlife tourism [abs# 210]

### **Brendan Hicks**

Black flounder otoliths show complex freshwater life histories [abs# 211]

### **Rachel Kelly**

Social licence of marine systems: Improving community knowledge and engagement in local marine industries using citizen science [abs# 212]

**Karissa Lear**

Correlations of metabolic rate and body acceleration in three coastal shark species under contrasting temperature regimes [abs# 213]

**Ana Martins**

Activity patterns and habitat use of juvenile *Pastinachus atrus* in a coral reef flat environment. [abs# 214]

**Mae Noble**

Culturally significant fisheries: keystones for management of freshwater social-ecological systems [abs# 215]

**Helen L O'Neill**

Changes in the bycatch of undersized plaice in the North Sea brown shrimp fishery between the 1980s and 2000s. [abs# 216]

**Nicholas Rawlinson**

The effect of magnets on the behaviour of draughtboards sharks (*Cephaloscyllium laticeps*) [abs# 217]

**Richard Reina**

How the Behaviour of the Gummy Shark During Longline Capture Reduces the Physiological Stress Response [abs# 218]

**Yannick Rousseau**

Global fisheries models: historical estimates and future developments. [abs# 219]

**Adam Schilds**

Using network analysis to explore co-occurrence patterns of white sharks (*Carcharodon carcharias*) aggregating at the Neptune Islands, South Australia [abs# 220]

**Edy Setyawan**

Connecting the dots: The movements of reef manta rays (*Manta alfredi*) and its implications for manta conservation and management in Raja Ampat, Indonesia [abs# 221]

**Cecilia Villacorta-Rath**

Size-at-settlement and its relationship to population of origin in the Southern Rock Lobster, *Jasus edwardsii* [abs# 222]

## WILDLIFE COMPUTERS

BOOTH 1



Wildlife computers is a leading innovator and supplier of electronic tracking solutions. Renowned for providing reliable products and publishable results, their instrumentation has been enabling research and empowering data-driven decisions for

more than 30 years. Visit the exhibition booth to learn more about wildlife computers technology and services. [wildlifecomputers.com](http://wildlifecomputers.com)

## VEMCO

BOOTH 2



Vemco is the world leader in the design and manufacture of underwater acoustic telemetry monitoring and tracking systems.

Our products are used by researchers worldwide for behaviour, migration and positioning studies of aquatic animals in fresh and saltwater environments. [vemco.com](http://vemco.com)

## CLS ARGOS

BOOTH 3



Argos is a unique, satellite-based location and data collection system dedicated to studying and protecting the environment since 1978. Argos helps the scientific community to better monitor and understand our environment and enables industry to comply with

environmental protection regulations. Today, Argos is operated and managed worldwide, by CLS group, a CNES subsidiary.

## CSIRO

BOOTH 4



At CSIRO, we do the extraordinary every day. We innovate for tomorrow and help improve today – for our customers, all Australians and the world. CSIRO Oceans and Atmosphere (O&A) is uniquely placed to deliver improved

scientific knowledge, information, products and services that contribute

to significant economic, social and environmental benefits for Australia and the region. O&A plays a key role in the Australian innovation system because our high-quality research capabilities span the ocean, air and land domains. Through cutting-edge research CSIRO scientists are providing knowledge and tools to support sustainable development of Australia's marine resources, including monitoring and mitigation of environmental impacts and conservation of marine biodiversity.

## INSTITUTE FOR MARINE AND ANTARCTIC STUDIES

BOOTH 5



IMAS is a centre of excellence for marine and Antarctic research and teaching. Our research cuts across traditional scientific and social scientific boundaries. We are dedicated to enhancing environmental understanding and facilitating thoughtful and sustainable development for the benefit of Australia and the world. We have an interdisciplinary approach to teaching marine and Antarctic science that integrates the study of natural sciences with current practice in management, policy and law. We seek to teach the next generation of internationally competitive and renowned scientists, policy makers, law makers, and globally aware citizens.

## SUBCON INTERNATIONAL

BOOTH 6



Subcon is an international company engaged in the design, manufacture and installation of marine foundations, stabilisation systems, revetments, reefs, marine concrete repairs and marine infrastructure. With offices in Belgium, Singapore, Australia and China we can provide a local service backed by international experts. Our proposition is to create value for our clients by providing premium products and services that reduce installation times and vessel costs. Subcon leads the market in developing innovative technologies that solve marine installation challenges. Backed by hydrodynamic tank testing and field trials, the Reef Temple™, Reef-Matt™, self-installing Reef Tower™, Apollo Module™ and Abitat Module™ have been installed and are contributing to Australia's robust and adaptive fisheries, ensuring fish stocks remain sustainable for future generations.



ECHOVIEW® is the world's premier software package for hydroacoustic data processing, delivering powerful and flexible capabilities for water-column and bottom echosounder and sonar data processing. [echoview.com](http://echoview.com)



E-Fish (UK) Ltd was established in 2009 following a request by the English and Welsh Environment Agency for electrofishing equipment that was reliable, robust and met all their health and safety requirements. The company now provides electrofishing equipment through the whole of the UK and also in the rest of the EU to government environmental departments, universities, conservation charities and consultants. In 2014 we set an agency in Australia with Dion Iervasi. This year we have also set up a new agency in the Republic of Korea. Working with one of our sister companies we now also provide various sonar equipment for survey work to add to our range of products.



Sirtrack/Lotek Wireless Inc. is a world leader in the design and manufacture of wildlife tracking systems. Acoustic telemetry is used to focus on small geographic areas, providing movement and fine-scale positioning data. GPS and ARGOS transmitters capture movement of animals that surface and archival tags collect movement and sensor data.



