



AUSTRALIAN SOCIETY FOR FISH BIOLOGY:
PROMOTING SCIENTIFIC EXCHANGE AND
SUPPORTING EARLY CAREER RESEARCHERS

B.M. Gillanders & G. Jackson

November 2016

FRDC Project 2013/404



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Australian Society for Fish Biology.

Fisheries Research.

Fishery management.

Congresses and conventions

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FINAL REPORT

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Australian Society for Fish Biology

Table of Contents

1	BACKGROUND	5
2	NEED	6
3	OBJECTIVES.....	7
4	REPORT STRUCTURE	7
5	ASFB CONFERENCE 2013.....	8
5.1	Background.....	8
5.2	Conference Organising Committee	8
5.3	Sponsorship	8
5.4	Event Program	9
5.5	Event Report.....	9
5.6	Key Indicators	9
5.7	Workshop and meeting summaries.....	10
6	ASFB CONFERENCE 2014.....	11
6.1	Background.....	11
6.2	Conference Organising Committee	11
6.3	Sponsorship	11
6.4	Event Program	12
6.5	Event Report.....	12
6.6	Key Indicators	13
6.7	Workshop and meeting summaries.....	13
7	ASFB CONFERENCE 2015.....	15
7.1	Background.....	15
7.2	Conference Organising Committee	15
7.3	Sponsorship	15
7.4	Event Program	16
7.5	Event Report.....	16
7.6	Key Indicators	17

7.7	Workshop and meeting summaries.....	18
8	RESEARCH & TRAVEL AWARDS	19
8.1	ASFB 2013 Student award recipients (sponsored by FRDC).....	19
8.2	Other ASFB awards presented at 2013 Conference	19
8.3	ASFB 2014 Student award recipients (sponsored by FRDC).....	21
8.4	Other ASFB awards presented at 2014 Conference	21
8.5	ASFB 2015 Student award recipients (sponsored by FRDC).....	23
8.6	Other ASFB awards presented at 2015 Conference	23
9	BENEFITS	25
10	FURTHER DEVELOPMENT	25
11	PLANNED OUTCOMES	25
12	CONCLUSION	25
	APPENDIX 1: INTELLECTUAL PROPERTY	27
	APPENDIX 2: STAFF.....	27
	APPENDIX 3: 2013 ASFB-NZFSS-NZMSS CONFERENCE PROGRAM	29
	APPENDIX 4: 2014 ASFB-ASL CONFERENCE PROGRAM	52
	APPENDIX 5: 2015 ASFB-ISSESr CONFERENCE PROGRAM.....	63

2013/404 Australian Society for Fish Biology: Promoting scientific exchange and supporting early career researchers
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OBJECTIVES

1. Provide a forum for researchers, managers and stakeholders to meet to discuss issues relevant to fish and fisheries science and management
2. Support, encourage and recognise achievements of early career researchers
3. Support and encourage student participation at ASFB's annual science conference

NON-TECHNICAL SUMMARY

OUTCOMES ACHIEVED TO DATE:

The primary outcomes of this project have been the knowledge transfer, building research partnerships and recognition and promotion of research achievements, particularly amongst early career researchers, arising from very successful ASFB annual science conferences held in 2013, 2014 and 2015. Every year during this 3-year period saw the ASFB partner with at least one other science-based society or interest group for the annual conference.

Key performance measures that support these outcomes include the large number of registrants (more than 300 for each conference event), the quality of keynote presenters attracted to the events (including world leaders in their fields of endeavour), the number, quality and diversity of scientific presentations (more than 200 for each event), and representation of students (more than 20% of all registrants) and early career researchers at each of the annual science conferences. Research achievements were actively recognised and promoted through a range of awards targeting students and early career researchers.

The Australian Society for Fish Biology (ASFB) was founded in 1971 and is a professional, independent, non-profit, and non-aligned organisation. The Society's objectives are to promote research, education and management of fish and fisheries and to provide a forum for the exchange of information. Annual conferences/workshops have been held each year since the Society's inception and provide a forum for scientists, managers, and industry from around Australia, New Zealand and elsewhere to meet and discuss the most recent developments in fish and fisheries science and management.

The annual science conference makes an important and tangible contribution to skill development of people involved in fish and fisheries research and management, particularly offering students and early career researchers opportunities to present their work, interact with peers, develop collaborative links and obtain new ideas. The ASFB has a strong commitment to promoting and communicating science, encouraging sustainable management practices, encouraging excellence in fisheries research, and recognising outstanding contributions of scientists and professionals through various awards and scholarships.

For the present project, FRDC funding was provided as sponsorship support for the 2013, 2014 and 2015 annual conferences with funding used to offset costs of staging the conference event in each year (addressing Objective 1); sponsorship of student conference presentation awards (addressing Objective 2); and travel subsidies for students to attend the conferences (addressing Objective 3.)

The 2013 ASFB conference was held as a joint event with the New Zealand Freshwater Sciences Society (NZFSS) and the New Zealand Marine Sciences Society (NZMSS) between 19 and 23 August in Hamilton, New Zealand. The conference, with the overall theme 'Aquatic science at the interface', included a broad and comprehensive program of scientific presentations, to meet the diverse range of interests of members of the three science societies, and various social events. Affiliated technical workshops included the 'Routine fish ageing using otoliths for fishery monitoring and stock assessment' workshop (pre-conference, August 18th) and the 'Salmonid research and management in New Zealand' workshop (post-conference, August 23rd).

A total of 561 delegates (122 students, 58 ASFB members, 156 NZFSS members, 131 NZMSS members, 152 non-members and day registrations, 64 not-advised or sponsors) attended the conference. The conference program included 368 oral presentations (including three keynote plenary talks from eminent scientists) and 63 posters. A range of special conference sessions were convened by members from the three societies; those convened by ASFB members included: Threatened freshwater fishes; Science at the interface of food production, ecosystem conservation and economic growth; Developments in research and management of snapper in Australia and New Zealand; Science at the interface of international management and policy in high seas demersal fisheries; Gobies, gudgeons and bullies; Estuaries & fish, and Recreational fishing.

The 2014 ASFB conference was held as a joint congress with the Australian Society for Limnology (ASL) between 30 June and 3 July in Darwin. The conference represented the ASFB's 40th annual conference and included a comprehensive program of scientific presentations and various social events. Affiliated technical workshops included an 'Indigenous cross cultural awareness' workshop for students (pre-conference, June 29th) and the 'Crustacean ageing techniques' workshop (post-conference, 4-5 July).

A total of 344 delegates (66 students, 120 ASFB members, 115 ASL members and large number unaffiliated registrations) attended the congress. The congress program included 243 oral presentations and 25 posters. Invited keynote plenary talks from recently honoured members of both societies on the first day were followed by plenaries on the theme 'Indigenous participation in research and management of

aquatic ecosystems' over the following three days. A range of special sessions convened by members from both societies that for the ASFB included: Video techniques in ecology, Climate change, Molecular ecology, Fisheries management, Marine ecology, Trait variation, Movement & Connectivity, Science Communication, Fish and flows, Threatened species, Recreational fishing and Improving estuarine habitat.

The 2015 ASFB conference was held as a joint event with the 5th International Symposium on Stock Enhancement and Sea Ranching (ISSESR) between 11 and 14 October, in Sydney. The conference program was developed as a three-day event to meet the objectives of both ASFB members and ISSESR delegates with the overall theme 'Understanding, sustaining and restoring fish populations'. The program included a Murray-Darling Basin Native Fish Forum and a post conference AATAMS workshop.

A total of 340 delegates (82 students, 223 ASFB members, 61 ISSESR) attending the conference, 47 of which were from overseas. The conference program included 217 oral presentations (10 keynote plenaries) and 31 posters. A range of special sessions convened by ASFB members included: Video and fish behaviour, Climate change, Fisheries management, Environmental flows, Threatened species, Recreational fisheries, Early life history, Enhancing fisheries through artificial habitat, Estuarine and coastal connectivity.

Support and encouragement for early career researchers and participation in ASFBs science conference was provided in practical terms in the form of research presentation awards - Gilbert P. Whitley awards for best oral presentations (sponsored by FRDC), John S. Lake best poster presentation awards (sponsored by FRDC), and Victorian Marine Science Consortium Award - and via John Glover travel bursaries (sponsored by FRDC). FRDC sponsorship of these awards over the three conferences amounted to almost \$24,000. A list of all award and bursary recipients (along with other ASFB research and travel awards) is provided in the report. Significantly, between 20 and 25 % of all participants at the three conferences were students, confirming the value of the events in providing a forum for early career researchers to not only present their research but interact with peers and build networks and collaborations.

KEYWORDS: Australian Society for Fish Biology: science conference; congress; student research awards; student travel bursary

ACKNOWLEDGEMENTS

The support of the Australian Society for Fish Biology's executive council, its membership and 2013, 2014 and 2015 event organising committees and sponsors is gratefully acknowledged. All three events were well organised and attended, and along with associated technical workshops and meetings they were successful in bringing together a large number of high quality presentations across a range of research areas relevant to fish and fisheries.

FRDC sponsorship was used to fund student conference presentation awards, student conference travel costs and offset event costs.

1 BACKGROUND

The Australian Society for Fish Biology (ASFB) was founded in 1971 and is a professional, independent, non-profit, and non-aligned organisation. The Society's objectives are to promote research, education and management of fish and fisheries and to provide a forum for the exchange of information. To achieve its objectives the Society:

- defines the study of fishes in the broadest sense as work in fields of research, management or learning relating to fishes. These include: biology, ecology, physiology, taxonomy and systematics, genetics, habitats and fisheries (including commercially important invertebrates) in marine, freshwater and estuarine environments.
- promotes a friendly, relaxed, egalitarian and welcoming atmosphere for members and those interested in the study of fish.
- encourages participation by all members, particularly students.
- encompasses the professional interests of members.
- promotes the profile of fish research to relevant agencies and the wider community.
- provides independent advice and information on relevant issues.
- promotes the use of fish research in sustainable natural resource management.
- provides access to expertise on fish and fisheries, facilitates professional networks and assists with career development.
- promotes discussion and workshops on topics of relevance and interest to enhance excellence in fish studies.

Annual conferences have been held each year since the Society's inception and provide a forum for scientists, managers, and industry from around Australia, New Zealand and elsewhere to meet and discuss the most recent developments in fish and fisheries science and management. The Society has also hosted a number of very successful international conferences, including the 2nd World Fisheries Congress (1996), World Congress on Aquatic Protected Areas (2002) and 8th Indo Pacific Fish Conference (2009). In 2005, the Society created the executive position of a National Conference/Workshop co-ordinator, to assist future local organising committees and ensure corporate knowledge in this area was maintained. The ASFB annual conference is widely regarded as Australia's foremost forum for fisheries researchers and managers to meet to discuss emerging fish and fisheries issues.

The ASFB has also taken a lead role in encouraging international scientific links in fish and fisheries research and management in Australia. Through the support of FRDC and State and Territory fishery agencies, ASFB has hosted national workshops that aim to:

1. provide a forum at which a technical area or subject of national significance can be discussed;

2. support keynote addresses by internationally recognised scientists of acknowledged expertise in the workshop subject area;
3. publish the workshop proceedings as a benchmark document of current knowledge in the subject area; and
4. identify and define research needs of national significance.

The proceedings of Society-held workshops are usually produced separately as special publications.

The Society now publishes a main newsletter once a year (in December) and a mid-year email news update (in July) that contain information of interest to the Society membership, including notices and information on upcoming events and activities. The Society is also now very active in social media (Facebook, Twitter) and recently created the executive position of a Communications Manager to manage this growing area of its communications.

The Society is a founding member of the World Council of Fisheries Societies which has the primary goal of promoting international cooperation in fisheries science, conservation and management and that is responsible for coordination of the World Fisheries Congress that is held every 4 years.

The Society has an active policy of supporting students and early career researchers, principally through awards which provide financial support to assist with travel or research costs. Included are a number of conference awards - John Glover Travel Fund Bursaries, Gilbert P. Whitley Memorial Student Award, John Lake Poster Award, and Victorian Marine Science Consortium Award (inaugurated in 2010) – and research awards - Barry Jonassen Award, Michael Hall Student Innovation Award and Student and Early Career Researcher International Travel Scholarships. Conference awards include travel support for students and student awards for high quality oral and poster presentations. The combined value of the awards has typically been over \$15,000 per year.

The Society also recognises outstanding career contributions in fish or fisheries science through the K. Radway Allen Award and an Early Career Research Excellence Award (inaugurated in 2011) to recognise outstanding contributions to fish and fisheries science by recently graduated scientists. Furthermore the Society has established an Ichthyology Hall of Fame, which provides biographic information and recognises the professional achievements of Australia's most prominent fish and fisheries scientists.

2 NEED

In the face of mounting pressure on Australia's marine and freshwater ecosystems, arising from environmental and human factors, there is a need for robust scientific information to support the sustainable development and management of our aquatic resources. The ASFB is Australia's premier professional association for fish and fisheries researchers in Australia. The annual science conference (and workshops) makes an important and tangible contribution to skill development of people involved in fish and fisheries research and management, particularly offering students and early career researchers opportunities to present their work, interact with peers, develop collaborative links and obtain new ideas. ASFB has a strong commitment to

promoting and communicating science, encouraging sustainable management practices, encouraging excellence in fisheries research, and recognizing outstanding contributions of scientists and professionals through various awards and scholarships.

This proposal sought sponsorship support for the annual science conference in 2013 (Hamilton), 2014 (Darwin) and 2015 (Sydney) and a series of conference associated awards that supported student travel and recognised research excellence. The proposal addressed two people development program priorities, namely (i) to encourage knowledge transfer and R&D adoption (ASFB annual science conference) and (ii) to recognise and promote achievements (ASFB research awards). Focus of the latter is on early career researchers, not only in providing encouragement to strive for research excellence but to encourage participation in the exchange of information and to provide opportunity to develop networks and collaborations with outside organisations.

3 OBJECTIVES

- 1 Provide a forum for researchers, managers and stakeholders to meet to discuss issues relevant to fish and fisheries science and management
- 2 Support, encourage and recognise achievements of early career researchers
- 3 Support and encourage student participation at ASFB's annual science conference

4 REPORT STRUCTURE

In addressing the above objectives, the funding provided by FRDC has three main components:

- sponsorship support for the staging of ASFBs annual science conference (Objective 1);
- funding of student research (conference presentation) awards (Objective 2); and
- travel support for students to attend the conference (Objective 3).

Priority is given to the use of the FRDC sponsorship to fund the student research awards and student travel support, the balance being used to offset costs of staging the conferences. In setting registration fees for conferences, the Society has a long-standing policy of offering significant discounts for student members as an incentive to encourage student participation.

The structure of this report addresses Objective 1 by providing a summary of key aspects of the 2013, 2014 and 2015 annual conferences (and associated meetings and workshops) (Sections 5, 6 & 7), recognising that they represent an important national forum for researchers, managers and stakeholders to meet and discuss issues relevant to fish and fisheries science and management. Objectives 2 and 3 are addressed by providing details of ASFB research and travel award recipients (Section 8).

5 ASFB CONFERENCE 2013

5.1 Background

The 2013 ASFB conference was held as a joint event with the New Zealand Freshwater Sciences Society (NZFSS) and the New Zealand Marine Sciences Society (NZMSS) between 19 and 23 August in Hamilton, New Zealand. The venue was the University of Waikato. This was the second time that the ASFB had held its annual conference in New Zealand but only the first time that these three societies had joined together for a conference. The conference, with the overall theme 'Aquatic science at the interface', included a broad and comprehensive program of scientific presentations, to meet the diverse range of interests of members of the three science societies, and various social events. Affiliated technical workshops included the 'Routine fish ageing using otoliths for fishery monitoring and stock assessment' workshop (organised by ASFB, August 18th) and the 'Salmonid research and management in New Zealand' workshop (organised by NZFSS, August 23rd).

5.2 Conference Organising Committee

Kevin Collier (Chair)	University of Waikato
Natasha Grainger	NZ Department of Conservation
Erina Watene-Rawiri	Waikato-Tainui College for Research and Development
Deniz Ozkundakci	University of Waikato
Conrad Pilditch	University of Waikato
Drew Lohrer	NIWA
Hilke Giles	Waikato Regional Council
Gary Jackson	WA Department of Fisheries
Brendan Hicks	University of Waikato
Nick Ling	University of Waikato
Lea Boodée	onCue Conferences

5.3 Sponsorship

A range of categories of sponsorship was offered including:

- Gold sponsors: FRDC was recognised as a principal sponsor, contributing to offsetting event costs and supporting student prizes and travel bursaries, NIWA
- Silver sponsors: Cawthron Institute, Eos Consultants, Genesis Energy, Waikato Regional Council
- Bronze sponsors: Kessels Ecology, Smith-Root, University of Waikato
- Keynote sponsor: Department of Conservation (NZ)
- Session sponsors: Antarctica New Zealand, NZ Antarctic Research Institute, Ministry for Primary Industries (NZ), Waikato-Tainui College for Research and Development
- Student sponsors: Ministry for Primary Industries (NZ), Aspiring Environmental
- YEC function sponsor: Envco
- Prize sponsors: Department of Conservation (NZ), Golder Associates, CSIRO Publishing

Sponsorship enabled the Organising Committee to subsidise the cost of the event and in particular student registrations.

5.4 Event Program

The conference program is provided as Appendix 3. The full program (including abstracts) can be downloaded from <http://asfbconf.asnevents.com.au/>

Technical workshops on 'Routine fish ageing using otoliths for fishery monitoring and stock assessment' workshop (August 18th) and 'Salmonid research and management in New Zealand' workshop (August 23rd) were held in association with the conference.

5.5 Event Report

The conference opened on Monday 19 August with a mihi (Maori welcome) led by Tom Roa followed by a response from the Prof. Roy Crawford, Vice-Chancellor of University of Waikato. The conference then commenced with the first keynote plenary by Dr Clive Howard-Williams (NIWA).

There were 63 posters and 368 oral presentations presented over the four-day program on a diverse range of topics relevant to both societies.

An Early Career Mixer Quiz Night held at The Cook Tavern (Tuesday 20th) was open to members of all three societies. The conference dinner was held at the Claudelands event centre in Hamilton (Wednesday 21st) and attended by 385 people.

5.6 Key Indicators

- 561 delegates (122 students in total, 58 members ASFB, 156 members NZFSS, 131 members NZMSS, 152 non-members and day registrations, 64 not-advised or sponsors) attended the conference
- Three keynote plenary presentations:
 - Dr Clive Howard-Williams (NIWA) *Dealing with the hyphen in the freshwater-ocean interface: Missing science links & missing policy*
 - Prof. Rod Connolly (Griffith University) *Fish can swim: the critical role of connectivity in sustainable harvesting and ecosystem functioning*
 - Dr Lindsay Chadderton (Nature Conservancy, USA) *Managing aquatic invasive species in the Laurentian Great Lakes – Lessons from a bi-national inland sea*
- 368 oral presentations that included three keynotes and 63 posters presented by students, early career and established scientists, managers and industry. A range of special conference sessions were convened by members from the three societies that for the ASFB included: Threatened freshwater fishes; Science at the interface of food production, ecosystem conservation and economic growth; Developments in research and management of snapper in Australia and New Zealand; Science at the interface of international management and policy in high seas demersal fisheries; Gobies, gudgeons and bullies; Estuaries & fish; Recreational fishing.

- Gilbert Whitely junior and senior oral presentation awards, John Lake junior and senior awards and John Glover travel fund bursaries were sponsored by FRDC, with recognition provided on certificates and at the award ceremony
- Pre-conference 'Routine fish ageing using otoliths for fishery monitoring and stock assessment' workshop was attended by 38 people
- NIWA, Smith-Root, Thermo Fisher Scientific, Kessels Ecology, Envco Global, EOS Ecology, Department of Conservation, DHI New Zealand, University of Waikato, and Scott Technical provided trade stands at the event.

5.7 Workshop and meeting summaries

A workshop on 'Routine fish ageing using otoliths for fishery monitoring and stock assessment' workshop was held on August 18th. The workshop, the 3rd in a series of Australian national workshops aimed at developing best practice protocols for the production of quality-assured age data for stock assessments of Australian finfish fisheries, was organised by the Ross Marriott (ASFB and WA Department of Fisheries). The day provided an opportunity for delegates from each of the Australian state fishery agencies to engage in discussions to identify protocols as prospective best practice measures, guidelines, or other elements of a quality control system to be further developed by each agency. In addition, it was an opportunity for Australian delegates to learn from New Zealand fish age estimation experts. Cameron Walsh (NIWA) gave a detailed presentation on current practices adopted for routine age estimation of pink snapper for monitoring and assessment of New Zealand's finfish fisheries.

6 ASFB CONFERENCE 2014

6.1 Background

The 2014 ASFB conference was held as a joint congress with the Australian Society for Limnology (ASL) at the Darwin Convention Centre from 30 June to 3 July in Darwin. The conference represented the ASFB's 40th annual conference and only the second time that the society had partnered with ASL. The congress program was developed as a four-day event to meet the interests of members of both societies and include a range of social events. The plenary theme of the congress was 'Indigenous participation in research and management of aquatic ecosystems'. Affiliated technical workshops included an 'Indigenous cross cultural awareness' workshop for students (pre-conference, June 29th) and the 'Crustacean ageing techniques' workshop (post-conference, 4th-5th July).

6.2 Conference Organising Committee

Alison King (Chair)	Charles Darwin University
Kate Buckley	Charles Darwin University
David Crook	Charles Darwin University
Michael Douglas	Charles Darwin University
Erica Garcia	Charles Darwin University
Peter Novak	Charles Darwin University
Thomas Rayner	Charles Darwin University
Amy George	NT Department of the Environment
Mark Grubert	NT Department of Primary Industry and Fisheries
Andria Handley	NT Department of Primary Industry and Fisheries
Thor Saunders	NT Department of Primary Industry and Fisheries
Michael Hammer	Museum & Art Gallery of the Northern Territory
Simon Townsend	NT Department of Land Resource Management
Jacqui Moir	ASN Events

6.3 Sponsorship

A range of categories of sponsorship was offered including:

- Platinum sponsor: FRDC was recognised as the principal sponsor, contributing to offsetting event costs and supporting student prizes and travel bursaries.
- Major sponsor: Research Institute for the Environment and Livelihoods
- Gold sponsor: Charles Darwin University
- Silver sponsors: Department of Environment and Primary Industries (Victoria), Australian Rivers Institute (Griffith University), Centre for Tropical Water and Aquatic Ecosystem Research (James Cook University), Institute for Applied Ecology (University of Canberra), University of Western Australia, CSIRO
- Congress dinner sponsor: Conoco Phillips
- Student workshop sponsor: National Environmental Research Program
- Social function sponsors: NT Government, Department of Fisheries Western Australia
- Poster session sponsor: Finterest
- Session sponsor: Murray-Darling Basin Authority
- Book launch sponsor: Institute for Applied Ecology (University of Canberra)

Sponsorship enabled the Organising Committee to subsidise the cost of the event and in particular student registrations.

6.4 Event Program

The conference program is provided as Appendix 4. The full program (including abstracts) can be downloaded from <http://asfbconf.asnevents.com.au/>

A student workshop on 'Indigenous Cross Cultural Awareness' (Sunday 29th June) and a workshop on 'Crustacean ageing techniques' (4-5th July) were held in association with the congress.

6.5 Event Report

The Congress opened on Monday 30th June with a Welcome to Country and presentation on cultural significance by Larrakia Nation Cultural Heritage Advisor, Donna Jackson. The Vice-Chancellor of Charles Darwin University, Prof Simon Maddocks also provided a formal welcome. The Congress then started with a morning plenary of Society Award speakers.

There were 243 oral presentations and 25 posters presented over the four-day program on a diverse range of topics relevant to both societies.

Ten invited plenary speakers from Australia, Canada and New Zealand gave presentations on the value and role of Indigenous participation in aquatic science and management under the congress theme "Indigenous participation in research and management of aquatic ecosystems".

The Poster session was held during an extended morning tea break on Tuesday with 25 posters presented.

An informal Student Mixer function was held at the Curve @ Vibe hotel at the waterfront and well attended by both ASFB and ASL students, and the executives of both Societies.

The Welcome function, on Monday evening, was hosted by the NT Government at Parliament House. Most of the delegates attended this event. The Congress was officially opened by Mr Gary Higgins (Member for Daly and Deputy Speaker of the House). Tuesday was Territory Day (aka "Cracker night"), the anniversary of NT self-governance. Delegates were offered a bus ride from the Darwin Convention Centre to the Mindil Beach Sunset Markets for the evening. An area was cordoned off for Congress delegates to enjoy a complimentary drink, some market food and view the NT Government fireworks display. Wednesday evening, the delegates were invited to the Deckchair Cinema, an iconic outdoor cinema under the stars, and perfectly suited to the dry season in the tropics. The trailer was a special short film "*Finding Netukulimuk*" featuring two of our plenary speakers Kerry Prosper and Jane McMillan. The feature film was "*Chasing Ice*", a documentary about filming the changing world due to climate change. The final event of the congress was the ASFB & ASL Congress Dinner held on Thursday evening at the Darwin Ski Club that was attended by 270 people.

6.6 Key Indicators

- 344 delegates (66 students and 278 professional registrations) attended the congress. Included international delegates from North America, Europe, SE Asia
- Seven keynote plenary presentations:
 - Kerry Prosper and Dr Jane McMillan (Mi'kmaq Community, Canada) *Remobilising Netukulimk: Indigenous cultural and spiritual connections with resource stewardship and fisheries management in Atlantic Canada*
 - Julian Williams (Waikato Tribe, New Zealand) *Integrated management of freshwaters fisheries : cultural learnings and experience of Waikato-Tainui*
 - Stan Lui (Torres Strait) *Torres Strait Sea Country – Do we really know who makes the decisions?*
 - Bo Carne (NT Fisheries) *Valuing Indigenous engagement in fisheries research*
 - Phil Duncan (NSW Aboriginal Land Council) *Indigenous voices in water rights – the NSW experience*
 - Denis Rose & Danny Lovett (Gunditjmara) *The Lake Condah restoration: combining traditional knowledge and science to reactivate Australia's oldest traditional aquaculture system*
 - Prof. Michael Douglas (Charles Darwin University) and Mona Liddy (Tjuwalyin Wagiman Aboriginal Corporation) *Talking together, working together, walking together*
- Three society keynote plenary presentations
 - ASFB Hall of Fame – Dr Martin Gomon (Museum Victoria) *The evolution of ASFB – reflections on 35 years of membership*
 - ASL Hilary Jolly Address – Dr Leon Barmuta (University of Tasmania) *Struggling with stochasticity: metaphors, narratives and evidence*
 - ASL Christy Fellows Lecture – Dr Sarina Loo *Adaptive management: good in theory, hard in practice*
- 243 oral presentations that included ten keynotes and 25 posters presented by students, early career and established scientists, managers and industry on a range of topics including: Video techniques in ecology, Climate change, Molecular ecology, Fisheries management, Marine ecology, Trait variation, Movement & Connectivity, Science Communication, Fish and flows, Threatened species, Recreational fishing and Improving estuarine habitat.
- Gilbert Whitely junior and senior oral presentation awards, John Lake junior and senior awards and John Glover travel fund bursaries were sponsored by FRDC, with recognition provided on certificates and at the award ceremony
- Pre-congress student 'Indigenous Cross Cultural Awareness' workshop was attended by 26 people
- Post-congress workshop on 'Crustacean ageing techniques'

6.7 Workshop and meeting summaries

A student workshop on 'Indigenous Cross Cultural Awareness' on Sunday 29th June was attended by 26 students. The workshop was sponsored by the National Environmental Research Program. The morning session lead by Indigenous educator and historian, Don Christophersen, gave participants an appreciation of Indigenous statistics, demographics and history, languages and communication, clans & kinship systems and the diversity of social and cultural protocols. The afternoon session

involved an 'on-country' tour and cultural experience with Graham Kenyon and his family from Pudukul Cultural Tours. Participants learnt about bush tucker, bush medicine, spear throwing and basket weaving.

A post-congress workshop on 'Crustacean ageing techniques' was held on 4-5th July. The workshop was organised by the Northern Territory Department of Primary Industry and Fisheries and separately funded under the FRDC Visiting Expert Bursary program that enabled Dr Raouf Kalida (University of New Brunswick, Canada) to transfer his knowledge of crustacean ageing techniques to Australian fisheries scientists. The workshop covered the preservation and processing of crustacean samples as well as the interpretation of growth bands and age validation methods.

Two post congress field trips were held. On Friday 4th a group of 21 delegates lead by Dr Simon Townsend explored a variety of freshwaters in Darwin and surrounds, ending with a jumping croc tour on the Adelaide River. Amy George hosted a 3 day trip (4-6th) to Kakadu attended by 17 people that included visits to Alligator River, Magela Creek, Billabongs, Ubirr, Rock art and the Adelaide River Cruise. Feedback for both field trips was outstanding.

7 ASFB CONFERENCE 2015

7.1 Background

The 2015 ASFB conference was held as a joint event with the 5th International Symposium on Stock Enhancement and Sea Ranching (ISSESR) at the University of Technology Sydney from 11 and 14 October, 2015. This was the first time the ISSESR, an international forum for scientists working in the areas of stock enhancement, restocking and sea ranching held every 4-years, had partnered with the ASFB.

The conference program was developed as a three-day event to meet the objectives of both ASFB members and ISSESR delegates with the overall theme 'Understanding, sustaining and restoring fish populations'. The program included a Murray-Darling Basin Native Fish Forum and a post conference Australian Animal Tracking and Monitoring Systems (AATAMS) workshop.

7.2 Conference Organising Committee

Matt Taylor (Chair)	NSW Department of Primary Industries
Gary Jackson	WA Department of Fisheries
Rowan Chick	NSW Department of Primary Industries
Katherine Cheshire	NSW Department of Primary Industries
Craig Boys	NSW Department of Primary Industries
Amy Smoothey	NSW Department of Primary Industries
James Smith	University of NSW
Neil Loneragan	Murdoch University
Brendan Ebner	CSIRO
Greg Jenkins	Challenger TAFE
Bronwyn Gillanders	University of Adelaide
Lieke Scherbeijn	ICMS Australia
Zoe Gillies	ICMS Australia

7.3 Sponsorship

A large range of categories of sponsorship was offered including:

- Platinum sponsors: NSW Department of Primary Industries, Recreational Fishing Trusts
- Principal sponsor: FRDC was recognised as the principal sponsor, contributing to offsetting event costs and supporting student prizes and travel bursaries.
- Major sponsor: Australian Centre for International Agricultural Research
- General sponsor: Murray-Darling Basin Authority
- Social Function Sponsors: University of Technology Sydney, Mote Marine Laboratory (USA), Sealife Trust, Subcom.
- Keynote sponsors: School of Forest Resources and Conservation (), West Australian Fish Foundation, FRDC
- Session sponsors: NSW Department of Primary Industries, Vemco, WA Department of Fisheries

Sponsorship enabled the Organising Committee to subsidise the cost of the event and in particular student registrations.

7.4 Event Program

The conference program is provided as Appendix 5. The full program (including abstracts) can be downloaded from <http://asfbconf.asnevents.com.au/>

The 5th AATAMS workshop, convened by IMOS staff based at the Sydney Institute for Marine Science was held in association with the conference (15th October).

7.5 Event Report

The overall theme of this joint conference was 'Understanding, sustaining and restoring fish populations'.

The conference was formally opened on the Monday by Dr Matt Taylor (NSW DPI and Chair 2015 ASFB-ISSESR Conference) followed by Mr Geoff Allen (Deputy Director General NSW DPI-Fisheries).

The conference then commenced with a keynote presentation by Mr Paul Lumley (Columbia River Inter-Tribal Fish Commission) who spoke about the significance of Pacific salmon to the First Nations of the Columbia River Basin (CRB). He highlighted the importance of restoring fish passage in the CRB, which First Nations people see as critical for surviving climate change. Other keynote plenaries included: Mr Brad Adams talking about the use of artificial 'Abitat' in sea-ranching of greenlip abalone on WA's south coast; Dr Kate Barclay on the importance of social norms and relations for understanding gender roles and choices in fisheries; Dr Marissa Baskett on responses to stock enhancement and environmental change; Dr Dean Jerry on the application of eDNA technology and Dr Caleb Gardner talking about the potential for increasing production in fully-fished stocks.

An ASFB ECR Awards plenary session saw Drs John Morrongiello and Chris Izzo speak about the utility of otoliths for understanding the historical and contemporary response of fishes to environmental change and harvest pressures. Both speakers highlighted the scientific value of otolith collections and the need for their safe keeping.

The MDB Native Fish Forum was attended by 130 delegates from different research and management agencies throughout Australia. Also in attendance were over 30 recreational anglers from fishing clubs throughout NSW, who received complimentary day registrations sponsored by the NSW Recreational Fishing Trust. The forum showcased the latest developments in the science and management of native fish in the MDB. It included plenary and short talks from leading experts on native fish in the MDB, as well as an international keynote presentation by Mr Les Perkins (Oregon, USA) who described the recent history of fish screening at irrigation diversions in the Pacific Northwest, and provided advice on how to progress a similar program in the MDB. Other topics covered included environmental flow management, 'fish-friendly' infrastructure, habitat rehabilitation, stocking, carp control and the role of recreational fishers in citizen science and fish habitat management. The format of the forum allowed for 20 minute Q&A sessions after each topic that resulted in robust discussion on the future direction of management to promote recovery of native fish in the MDB.

The Welcome Reception, on the Sunday night, was hosted by SeaLife Trust at the Sydney Aquarium. The reception opened with a Welcome to Country from Marcia Ella-Duncan (of the Yuin nation) followed by a welcome to delegates from Dr Gary Jackson (ASFB President).

A Student Mixer was held at Penny Lane, UTS, on the Monday evening.

Following the MDB Native Fish Forum on the Tuesday, a Meet the Boffins Mixer was held in the evening at the UTS Aerial Function Centre (sponsored by Recreational Fishing Trust). On the same evening there was also an ISSES 2015 Catch Up at the nearby Bar Broadway (sponsored by Mote Marine Laboratory).

The final social event of the conference was the Conference Dinner Cruise on the Wednesday night (sponsored by Subcon), which was attended by 250 people, included around 30 minutes of thankyou and ASFB awards, including the announcement of the 2015 KRA Award recipient, Professor David Bellwood.

7.6 Key Indicators

- 340 delegates (82 students and 258 professional registrations) attended the conference. Delegates included international representatives from nine countries from the Asia Pacific region, Africa, Europe and the Americas.
- Eight keynote conference presentations:
 - Mr Paul Lumley (Columbia River Inter-tribal Fish Commission) *Using Indigenous fishing rights to stimulate restoration of fish populations*
 - Dr Marissa Baskett (University of California) *The role of rapid evolution in responses to stock enhancement and environmental change*
 - Dr Kate Barclay (UTS) *How can we evaluate the social contribution of fisheries*
 - Mr Brad Adams (Ocean Grown Abalone) *Sea ranching of abalone in Flinders Bay, Western Australia*
 - A/Prof Caleb Gardner (University of Tasmania) *Increasing production in fully exploited fisheries*
 - Prof Dean Jerry (James Cook University) *Spyglass into aquatic biological diversity – use of environmental DNA (eDNA) to detect rare and invasive species*
 - Dr Martin Mallen-Cooper (Fishway Consulting Services) *Does the natural flow paradigm need a rethink*
 - Mr Les Perkins (Farmers Conservation Alliance) *Collaborative fish screening pilot projects for the MDB: What lessons can be learned from the Pacific Northwest United States*
- Two ASFB keynote presentations:
 - 2014 ECR International Travel recipient: Dr Chris Izzo (University of Adelaide) *Seasonally resolved environmental reconstructions using fish otoliths*
 - 2014 ECR Excellence Award recipient: Dr John Morrongiello (University of Melbourne) *Otoliths: From individuals to assemblages in a changing world*
- 217 oral presentations that included ten keynotes and 31 posters presented by students, early career and established scientists, managers and industry on a range of topics including: Videos, fish behaviour & ecology, Climate change, Fisheries biology, ecology & management, Environmental flows &

planning, Threatened species, Recreational fisheries & surveys, Reproduction, early life history & recruitment, Telemetry & ecology, Productivity and profitability in fisheries, Fish energetics and behaviour, Enhancing fisheries through artificial habitat, Estuarine and coastal connectivity.

- Gilbert Whitely junior and senior oral presentation awards, John Lake junior and senior awards and John Glover travel fund bursaries were sponsored by FRDC, with recognition provided on certificates and at the award ceremony
- AATAMS post-conference workshop was attended by 38 people
- Advanced Telemetry Systems, NMT, Sirtrack, Subcon and Vemco provided trade stands at the event.

7.7 Workshop and meeting summaries

The 5th National Annual Australian Animal Tracking and Monitoring Systems (AATAMS) Workshop was held on the Thursday, at UTS, Building CB05B. The workshop was sponsored by IMOS, Sydney Institute of Marine Science and Vemco. Andre Steckenreuter chaired the proceedings which commenced with overviews of the AATAMS and the database (by Andre), IMOS (by Xavier Hoenner) and Vemco's Acoustic technology ahead of a series of presentations from people who use the acoustic technology to better understand the movements of fish and turtles. The workshop was attended by around 40 people and ended with a social function at the nearby Stoned Crow on Broadway.

8 RESEARCH & TRAVEL AWARDS

8.1 ASFB 2013 Student award recipients (sponsored by FRDC)

GP Whitley Senior Award – best student (Masters or PhD) oral presentation

Michael Smith (University of Melbourne) – *An investigation into fisheries interaction effects using Atlantis*.

GP Whitley Junior Award – best student (Honours) oral presentation

Tansyn Noble (James Cook University) – *'Barra gone wild: investigating the genetic consequences of a large-scale escape of farmed barramundi'*.

JS Lake Senior Award - best student (Masters or PhD) poster

not awarded

JS Lake Junior Award – best student (Honours) poster

not awarded

Victorian Marine Science Consortium Award for temperate marine fish research (sponsored by VMSC)

Sarah Catalano (University of Adelaide) – *Dicyemid parasites as biological tags: examining population structure of the giant Australian cuttlefish (Sepia apama) in southern Australian waters*.

John Glover Travel Award recipients:

Jonathon Murphy (Murdoch University), Gretchen Grammer (University of Adelaide), Sarah Catalano (University of Adelaide), Simon Westergaard (Flinders University), Minh Quang Dinh (Flinders University), Krystina Mossop (Flinders University), Hillary Mahon (Flinders University), Elise Furlan (University of Canberra), Robert Parker (University of Tasmania), Tansyn Noble (James Cook University), Matt Le Feuvre (University of Melbourne), Michael Smith (University of Melbourne), James Shelley (University of Melbourne)

Value of student awards (FRDC contribution)

GP Whitley awards	\$1,200
John Glover awards	<u>\$6,300</u>
Total	\$7,500

8.2 Other ASFB awards presented at 2013 Conference

2013 Barry Jonassen Award – Alicia Burns (University of Sydney) \$2,000 towards costs associated with her research project examining 'The functions and mechanisms of behavioural variation: how individuality may lead to ecological invasions'.

2013 Michael Hall Student Innovation Award – Philip Sweetman (University of Tasmania) \$2,000 towards costs associated with his research project examining ‘A growth biochronology of pink ling (*Genypterus blacodes*) investigating the temporal and spatial effects of temperature and CPUE variation on growth rates’.

International Travel awards

Student International Travel Scholarship – Tim Emery (University of Tasmania) for his paper ‘Fishing for revenue: how leasing quota can be hazardous for your health’. \$3000 provided to support travel to the International Council for the Exploration of the Sea (ICES) annual science conference in Reykjavik, Iceland in September 2013.

Early Career International Travel Scholarship - John Morrongiello (CSIRO) \$3000 support for him to travel to the 5th International Otolith Symposium held in Mallorca, Spain, 2014.

Career Excellence awards

ECR Excellence Award – not awarded

K Radway Allen Award for career excellence and outstanding contribution in fish or fisheries science - John Stevens (CSIRO retired), internationally recognised pioneer in shark and ray research with work conducted over 40 years in NE Atlantic, Indian Ocean and Australia.

8.3 ASFB 2014 Student award recipients (sponsored by FRDC)

GP Whitley Senior Award – best student (Masters or PhD) oral presentation

Krystina Mossop (Monash University) - *Connectivity, phylogeography and behaviour of a desert-dwelling fish: does habitat matter?*

GP Whitley Junior Award – best student (Honours) oral presentation

Samuel Williams (University of Queensland) - *Genetic population structure of black marlin (Istiompax indica) within the central Indo-Pacific*

JS Lake Senior Award - best student (Masters or PhD) poster

Leanne Currey (James Cook University) - *Environmental drivers of depth use by an exploited reef fish*

JS Lake Junior Award – best student (Honours) poster

Mae Noble (Australian National University) - *Can Murray crayfish be a key surrogate species for freshwater management?*

Victorian Marine Science Consortium Award for temperate marine fish research (sponsored by VMSC)

Stephanie Brodie (University of New South Wales) - *The oceanographic habitats of two migratory pelagic fish: dolphinfish (Mahi mahi) and yellowtail kingfish (Seriola lalandi)*

John Glover Travel Award recipients:

Aurelien Vivancos (Otago), James Keating (Ireland), Daniel Yeoh (Murdoch), Mae Noble (ANU), Prue McGuffie (Canberra), Steph Brodie (UNSW), Krystle Keller (UNSW), Teagan Marzullo (UNSW), James Shelley (Melbourne), Krystina Mossop (Monash), Sherrie Chambers (Melbourne), Matt Le Feuvre (Melbourne), Samuel Williams (University of Queensland), Leanne Currey (JCU), Merritt Adkins (JCU), Elodie Ledee (JCU), Jordan Matley (JCU), Geoff Collins (JCU).

Value of student awards (FRDC contribution)

GP Whitley awards	\$1,200
JS Lake awards	\$1,200
John Glover awards	\$7,700
Total	\$10,100

8.4 Other ASFB awards presented at 2014 Conference

Student Research Support

2014 Barry Jonassen Award – Mae Noble (ANU) \$2,000 towards costs associated with her research project examining 'Population biology & ecology of upland Murray crayfish'.

2014 Michael Hall Student Innovation Award – Isis Lim (ANU) \$2,000 towards costs associated with her research project examining 'Seasonal habitat bottlenecks in seaweed-associated fish'.

International Travel awards

Jonathon Murphy¹ Student International Travel Scholarship – Rohan Brooker (James Cook University) for his paper 'You are what you eat: diet-induced chemical crypsis in a coral-feeding reef fish'. \$3,000 support to travel to the International Society of Behavioural Ecology congress held in New York, USA, in August 2014

Runner Up - Jonathon Murphy Student International Travel Scholarship – Bridie Allen (James Cook University) for her paper 'Parental effects improve escape performance of juvenile reef fish in a high CO₂ world'. \$1,500 support to travel to the 2014 Society of Experimental Biology conference in Manchester, UK.

Early Career International Travel Scholarship – Chris Izzo (University of Adelaide) \$3000 support for him to travel to the 5th International Otolith Symposium held in Mallorca, Spain.

Runner Up - Early Career International Travel Scholarship – Brendan Ebner (CSIRO/JCU) \$1500 support for him to attend the 27th International Congress for Conservation Biology in Montpellier, France.

Career Excellence awards

ECR Excellence Award – John Morrongiello (CSIRO) for his contribution to research in marine and freshwater systems investigating how fish respond to environmental change on contemporary and evolutionary time scales.

¹ Jonathon Murphy was an ASFB student member based at Murdoch University who was killed in a traffic accident in February 2014. The Student Travel Scholarships awarded in 2014 were named in his honour.

8.5 ASFB 2015 Student award recipients (sponsored by FRDC)

GP Whitley Senior Award – best student (Masters or PhD) oral presentation

Alexia Dubuc (James Cook University) - *Dissolved oxygen in mangrove ecosystems and impacts as productive habitat*

GP Whitley Junior Award – best student (Honours) oral presentation

Garry Ogston (Murdoch University) - *Implications of climate change on aestivating fishes*

JS Lake Senior Award - best student (Masters or PhD) poster

Mario Espinoza (James Cook University) - *Contrasting movements and connectivity of reef-associated sharks: implications for management*

JS Lake Junior Award – best student (Honours) poster

Kye Adams (University of Wollongong) - *Fiddler on the reef: movement and abundance of Fiddler rays*

Victorian Marine Science Consortium Award for temperate marine fish research (sponsored by VMSC)

Anne-Marie Hegarty (University Technology Sydney) - *Reproductive characteristics of *Teraglin*, *Atractoscion aequidens*, off the coast of NSW*

John Glover Travel Award recipients:

Mae Noble (ANU), Joshua van Lier (ANU), Michael Bertram (Monash University), Matthew Le Feuvre (University of Melbourne), Tyson Martin (Griffith University), Samuel Williams (University of Queensland), Claudia Trave (JCU), Giverny Rodgers (JCU), Mario Espinoza (JCU), Alexia Dubuc (JCU), Jordan Matley (JCU), Elodie Ledee (JCU), Tullio Rossi (University of Adelaide), Katherine Cure (University of WA), Garry Ogston (Murdoch University), Daniel Yeoh (Murdoch University), Fernando Cagua (University of Canterbury).

Value of student awards (FRDC contribution)

GP Whitley awards	\$1,200
JS Lake awards	\$1,200
John Glover awards	<u>\$3,932</u>
Total	\$6,332

8.6 Other ASFB awards presented at 2015 Conference

Student Research Support

2015 Barry Jonassen Award - Michael Bertram (Monash University) \$2,000 towards costs associated with his research project examining 'The effects of sex-reversing endocrine disrupting pollutants released from agricultural operations on freshwater fish'.

2015 Michael Hall Student Innovation Award - Samuel Williams (University of Queensland) \$2,000 towards costs associated with his research project examining 'Population genetics of the Australian black marlin (*Istiompax indica*) using citizen science'.

International Travel awards

Student International Travel Scholarship - Mario Espinoza (James Cook University) for his paper 'Partial migration of marine predators: is habitat the key'.

Early Career International Travel Scholarship – Heidi Pethybridge (CSIRO, Hobart) \$3,000 support for her to travel to the 'The International Society for Ecological Modelling Global Conference 2016' to be held at Towson University, USA, in May 2016, to present her paper 'Biochemical tracers and ecosystem models: a review of techniques and progress'.

Career Excellence awards

ECR Excellence Award – not awarded

9 BENEFITS

The main benefits of the FRDC sponsorship in supporting research awards and the annual science conferences are the promotion of research excellence, extension of research findings (many projects funded by FRDC) and training and mentoring of early career researchers. More broadly, stakeholder groups, resource managers, industry and the general community accrue benefit from the transfer of knowledge and technology that supports the health and sustainability of aquatic ecosystems and fishing industries.

10 FURTHER DEVELOPMENT

In relation to this project there is no further development required. Provision of multi-year sponsorship support to the ASFB as part of an integrated sponsorship package has, however, proven effective in providing certainty for the Society in its ability to organise its annual science conference, and allowing for a strong focus of support for early career researchers via research awards, travel bursaries and subsidised registrations. The move away from the more traditional annual sponsorship requests linked to a specific workshop theme (often involving considerable organisational and reporting requirements) has also resulted in a move to a more flexible approach that has seen multiple workshops and technical meetings associated with conferences, adding further value to each event.

11 PLANNED OUTCOMES

Effective provision of opportunities for knowledge transfer, the building research partnerships as well as recognising and promoting achievements, particularly among early career researchers represent the main planned outcomes. Key performance measures that support these outcomes include the large number of registrants (around 220 for each event), the quality of keynote presenters attracted to the events (including world leaders in their fields of endeavour), the number, quality and diversity of presentations (over 100 for each event), representation of students (around 30% of all registrants) and early career researchers who presented their research at each of the annual science conferences.

12 CONCLUSION

The 2013, 2014 and 2015 annual science conferences were highly successful as evidenced by metrics such as the number of registrants (in particular students), number of presentations, and value adding achieved through linked technical workshops and meetings. The broad scope of the programs, the quality of presenters, many of whom are recognised internationally as experts in their fields, coupled with the level of interest in meetings and workshops associated with the events (evidenced by the number of registrants, sponsors and exhibitors) pays testimony to the overall significance as a national forum of research exchange of the ASFB annual conference. FRDC sponsorship contributed to funding awards and off-set event costs that also enabled significant registration discounts to be offered to

students.

APPENDIX 1: INTELLECTUAL PROPERTY

This is not applicable to this project.

APPENDIX 2: STAFF

Australian Society for Fish Biology

Bronwyn Gillanders	University of Adelaide
Gary Jackson	Department of Fisheries, Government of Western Australia
Chris Izzo	University of Adelaide
Joel Williams	Murdoch University

2013 Conference Organising Committee

Kevin Collier (Chair)	University of Waikato
Natasha Grainger	NZ Department of Conservation
Erina Watene -Rawiri	Waikato-Tainui College for Research and Development
Deniz Ozkundakci	University of Waikato
Conrad Pilditch	University of Waikato
Drew Lohrer	NIWA
Hilke Giles	Waikato Regional Council
Gary Jackson	WA Department of Fisheries
Brendan Hicks	University of Waikato
Nick Ling	University of Waikato
Lea Boodée	onCue Conferences

2014 Conference Organising Committee

Alison King (Chair)	Charles Darwin University
Kate Buckley	Charles Darwin University
David Crook	Charles Darwin University
Michael Douglas	Charles Darwin University
Erica Garcia	Charles Darwin University
Peter Novak	Charles Darwin University
Thomas Rayner	Charles Darwin University
Amy George	NT Department of the Environment
Mark Grubert	NT Department of Primary Industry and Fisheries
Andria Handley	NT Department of Primary Industry and Fisheries
Thor Saunders	NT Department of Primary Industry and Fisheries
Michael Hammer	Museum & Art Gallery of the Northern Territory
Simon Townsend	NT Department of Land Resource Management
Jacqui Moir	ASN Events

2015 Conference Organising Committee

Matt Taylor (Chair)	NSW Department of Primary Industries
Gary Jackson	WA Department of Fisheries
Rowan Chick	NSW Department of Primary Industries
Katherine Cheshire	NSW Department of Primary Industries
Craig Boys	NSW Department of Primary Industries
Amy Smoothey	NSW Department of Primary Industries
James Smith	University of NSW
Neil Loneragan	Murdoch University
Brendan Ebner	CSIRO
Greg Jenkins	Challenger TAFE

Bronwyn Gillanders
Lieke Scherbeijn
Zoe Gillies

University of Adelaide
ICMS Australia
ICMS Australia

APPENDIX 3: 2013 ASFB-NZFSS-NZMSS CONFERENCE PROGRAM

CONFERENCE SESSIONS PROGRAMMES

SESSION 1 // 11:00am–12:45pm // MONDAY 19 August 2013				
Location	Session Topic	11:00–11:15am	11:15–11:30am	11:30–11:45am
L3	SPECIAL SESSION: Mana o te Wai Māori – the Prestige Water Session Chair: Aarika Hopkins	SESSION KEYNOTE: Taking Strength from Our Partnerships Tom Roa // Tainui Te Kauhanganui Inc		Cultural Relationship & Mana of Water with & Within the Maori World – Part 1 (*) Ngahua Dixon // AM ² & Associates (sponsored by AM ² & Associates)
L5	SPECIAL SESSION: Science at the Interface of Food Production, Ecosystem Conservation, & Economic Growth – Future Fishers (sponsored by Ministry for Primary Industries) Session Chair: You Gan Wang	SESSION KEYNOTE: What is the Future for Fisheries? Shijie Zhou // CSIRO		Environmental Consequences of Management Decisions on the Footprint of Wild Capture Seafood *** Anna Farmery // University of Tasmania
S104	SPECIAL SESSION: Spatial Ecology & Mapping Session Chair: Drew Lohrer	Overview of Marine & Estuarine Habitat Mapping Approaches & Spatial Modelling Judi Hewitt // NIWA	Spatial Perspectives in Ecology Casper Kraan // NIWA	Space Matters when Counting on Biodiversity to Overcome the Cumulative Effects of Disturbance in Seafloor Habitats Simon Thrush // NIWA, University of Auckland
L1	SPECIAL SESSION: Threatened Freshwater Fishes: Ecology & Management PART 1 Session Chair: Mark Lintermans	A Review of On-ground Recovery Actions for Threatened Freshwater Fish in Australia Mark Lintermans // University of Canberra	Conservation & Recovery of Threatened New Zealand Fishes Sjaan Bowle // Department of Conservation	Exploring the Ecological & Social Interface: Effective Engagement of the Native Fish Strategy Fern Hames // Arthur Rylah Institute for Environmental Research
L2	CLIMATE CHANGE Session Chair: Bronwyn Gillanders	Climate Change & Water Resources Scenario-based Modelling Study in a Dairy Catchment Christian Zammit // NIWA	Within & Among Individual Variation Underpins Population-level Responses to Temperature in a Marine Fish John Morrongiello // CSIRO	Temperature Limits to Early Development of the New Zealand Sea Urchin <i>Evechinus chloroticus</i> (Valenciennes, 1846) ** Natali Delorme // The University of Auckland
L4	ENVIRONMENTAL MONITORING PART 1 Session Chair: Ngaina Phillips	Present & Future Applications of Remote Sensing of Water Quality in Rotorua Lakes * Mathew Allan // The University of Waikato	Water Quality & The Lake Waikaremoana Trout Fishery: Satellite Imagery & High Frequency Water Quality Monitoring Chris McBride // The University of Waikato	Broad-scale Stream Habitat Mapping in a Best Practice Dairy Catchment – a GIS Based Approach Robin Holmes // Cawthron Institute
SG01	ROCKY REEF ECOLOGY Session Chair: Ali MacDiarmid	Revisiting Diversity & Resilience of Coastal Reefs: Why are so Many Species (Usually) Rare & what are the Implications for Sustainable Management? David Schiel // University of Canterbury	Effects of Warmer Oceans & Reduced Light on Productivity of the Habitat-forming Kelp <i>Ecklonia radiata</i> ** Kirsten Rodgers // The University of Auckland	Ecological Effects of <i>Undaria pinnatifida</i> : What Does Our Not-so-recent Arrival Do? Paul South // University of Canterbury

* NZFSS student / ** NZMSS student / *** ASFB student / 0 = not a member

SESSION 1 // 11:00am–12:45pm // MONDAY 19 August 2013

Location	11:45am–12:00pm	12:00–12:15pm	12:15–12:30pm	12:30–12:45pm
L3	<p>Cultural Relationship & Mana of Water with & Within the Maori World – Part 2 (*)</p> <p>Ngahua Dixon // AM? & Associates (sponsored by AM? & Associates)</p>	<p>So What Now?</p> <p>Janise Eketone // Maniapoto Maori Trust Board</p>	<p>Matauranga Maori, Science & Health of the Tongapu Wetland *</p> <p>Mahuru Robb // The University of Waikato</p>	<p>Hapu & Whanau Partnerships in Tuna Research in the Wairua & Mangakahia River Catchment</p> <p>Nicki Wakefield // Ngā Kaitiaki o Ngā Wai Māori, NIWA</p>
L5	<p>Marine Species: Thought for Food</p> <p>Bridget Green // University of Tasmania</p>	<p>Evolution of the Harvest Strategy for the South Australian Sardine Fishery: Implications for Similar Fisheries</p> <p>Tim Ward // South Australian Research & Development Institute</p>	<p>An Investigation into Fisheries Interaction Effects Using Atlantis ***</p> <p>Michael Smith // The University of Melbourne</p>	
S104	<p>Local Factors Drive Macrobenthic Species Richness in Intertidal Areas Across Scales</p> <p>Judi Hewitt // NIWA</p>	<p>Spatial Patterns in Functional Redundancy & Ecological Resilience in Wairoa Embayment, South Eastern Tairāhaki Strait</p> <p>Drew Lohrer // NIWA</p>	<p>Population Structure & Connectivity in New Zealand Coastal Marine Organisms: Contrasting Patterns in Two Surfclam Species **</p> <p>Danielle Hannan // Victoria University of Wellington</p>	
L1	<p>Triple Jeopardy in the Tropics: Assessing Extinction Risk in Australia's Freshwater Biodiversity Hotspot ***</p> <p>Matthew Le Fouvre // The University of Melbourne</p>	<p>The Kimberley Ark: Assessing & Conserving Freshwater Fish Biodiversity in Australia's Last Pristine River Systems***</p> <p>James Shelley // University of Melbourne</p>	<p>Recovery of the Endangered Trout Cod – What Have We Achieved in Morehan 25 Years?</p> <p>John Koehn // Arthur Rylah Institute for Environmental Research</p>	
L2	<p>Linking an Oolothased Marine Biochronology with Environmental Parameters to Explore Climate-related Changes in Coastal Upwelling Strength ***</p> <p>Gretchen Grammar // The University of Adelaide</p>	<p>Can a 'Species' Response to Climate Change be Inferred from Analysis of Ooloth-based Growth Rates?</p> <p>Ronald Thresher // CSIRO</p>	<p>Temperature Trends in Rivers & Lakes</p> <p>Piet Verburg // NIWA</p>	<p>Warming Climate, Cooling Lake: the Changing Thermal Regime in Lake Manapouri Over 25 Years</p> <p>Ian Henderson // Massey University</p>
L4	<p>Integration Of Biological Traits into Regional Bio-monitoring Programmes</p> <p>Ngairi Phillips // Streamlined Environmental</p>	<p>Waikato Regional Council Freshwater Fish Monitoring Programme – a Developmental Overview</p> <p>Callum Bourke // Waikato Regional Council</p>	<p>Assessing Boat Electrofishing Injury on Shortfin Eels, <i>Anguilla australis</i> *</p> <p>Joshua De Villiers // Department of Biological Sciences</p>	<p>Downstream Services in Support for EU Marine Strategy Framework Directive: Combining Observation Technologies for Optimal Ecosystem Mapping</p> <p>Anders Erichsen // DHI</p>
SG01	<p>The Role of Food Availability & Predator Pressure on Sea Urchins Shifting Behaviour (**)</p> <p>Arie Spykma // The University of Auckland</p>	<p>Impacts of Opportunistic Algae on the Early Life History of a Habitat-forming Foricoid: Interacting Effects of Temperature, Nutrient Enrichment & Grazing Pressure **</p> <p>Alestra Tommaso // University of Canterbury</p>	<p>Characterisation of Subtidal Rhodolith Beds in Northern New Zealand & Their Associated Biodiversity</p> <p>Wendy Nelson // NIWA, University of Auckland</p>	<p>The Secret Life of Zombies: Consequences of Co-habitation & Dispersal with the Living Dead</p> <p>Jeff Shima // Victoria University of Wellington</p>

* NZFSS student / ** NZMSS student / *** ASFE student / @ = not a member

SESSION 2 // 2:00–3:30pm // MONDAY 19 August 2013

Location	Session Topic	2:00–2:15pm	2:15–2:30pm	2:30–2:45pm
L3	SPECIAL SESSION: Waikato Taniwharau (sponsored by Waikato-Tairāwhiti College for Research & Development) Session Chair: Kapa Morgan & Erina Watene-Rawiri	Waikato Taniwharau: Competing Needs in the Management of the Waikato River Kapa Morgan // The University of Auckland	Lake Kirihihi Restoration Project John Te Maru // Waahi Whaanui Trust	Restoring the River Sky – Ngāi Karu o Matariki Cheri van Schravendijk- Goodman // Waikato Raupatu River Trust
L5	Continued... SPECIAL SESSION: Science at the Interface of Food Production, Ecosystem Conservation, & Economic Growth – Future Fishers (sponsored by Ministry for Primary Industry) Session Chair: Shijie Zhou	Fisheries Ecology, Economics & Culture: Getting the Mix Right for the Sepik-Ramu, PNG Alan Webb // Hydrobiology Qld Pty Ltd	Bioeconomic Decision Making for a Lobster Fishery: Comparing Four Fishery Management Approaches Richard McGarvey // South Australian Research & Development Institute	Sustainable Management & Economic Optimization in Australian Commonwealth Fisheries Na Wang // The University of Queensland
S104	Continued... SPECIAL SESSION: Spatial Ecology & Mapping Session Chair: Drew Lohrer	Marine Spatial Planning: Managing the Use of Marine Space Through Participation Greig Funnell // Department of Conservation	Mapping Ecosystem Services in the Marine Environment: Dealing with Issues of Scale, Uncertainty & a Lack of Data Michael Townsend // NIWA	Satellite Tagging of Blue Sharks in New Zealand to Define Critical Habitat Use & Migration (**) Riley Elliott // The University of Auckland
L1	Continued... SPECIAL SESSION: Threatened Freshwater Fish: Ecology & Management PART 1 Session Chair: Mark Lintermans	Threatened Fish Reintroductions in the Lower Lakes of the River Murray 2011–2013: Successes, Lessons & Prospects Chris Bloe // South Australian Research & Development Institute	Murray-Darling Basin Fishes: Phylogenetic Relationships & Distributional Patterns Peter Unmack // University of Canberra	Population Genetic Structure in Freshwater Fish from Southwest Western Australia *** Jonathan Murphy // Murdoch University
L2	SPECIAL SESSION: Estuarine Systems – Science, Management & Protection Session Chair: Helen Kettles	SESSION KEYNOTE: Science for Estuary Management in NSW: Combining Monitoring, Research, Modelling & Communication Peter Scanes // Office of Environment & Heritage, NSW		Estuarine Environments of New Zealand: Forgotten Ecosystems or Places of Future Opportunities for Conservation? Helen Kettles & Philippe Gerbeaux // Department of Conservation
SG02	MARINE CHEMISTRY & MICROBES Session Chair: Max Gibbs	Impacts of Climate Change on Macroalgal Assemblages: Interactions Between Ocean Acidification & Rising Temperatures in Complex Communities Leigh Tait // University of Canterbury	Kina, Ocean Acidification & Sensitive Males ** Mike Hudson // The University of Auckland	Preliminary Investigation of White Island's Natural CO ₂ Vents as Sites of Future Ocean Acidification Research (**) Johanna Brinkman // University of Otago
SG01	CONNECTIVITY Session Chair: Bruno David	Rope Beats Slope: Mussel Ropes Improve Fish & Shrimp Passage Through Culverts Bruno David // Waikato Regional Council	Habitat Modification or Migration Barrier? Tide Gates & Their Effects on Freshwater Fish Communities Paul Franklin // NIWA	Susceptibility of Murray Cod (<i>Maccullochella peeli peeli</i>) Larvae to Barotrauma During River Infrastructure Passage Craig Boys // NSW Department of Primary Industries

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SESSION 2 // 2:00–3:30pm // MONDAY 19 August 2013

Location	2:45–3:00pm	3:00–3:15pm	3:15–3:30pm
L3	<p>Te Awara – Is There a Place for Waikato?</p> <p>Dan Hikuroa // Ngā Pae o te Māramatanga</p>	<p>Lake Waahi Restoration Project</p> <p>Erna Watana-Rawiri</p>	
L5	<p>Energy Use in Australian Fisheries: Economic Performance, Environmental Impact, & Implications for Management ***</p> <p>Robert Parker // University of Tasmania</p>		
S104	<p>Undersea New Zealand</p> <p>Helen Neil // NIWA</p>	<p>Redmap an Online Database & Mapping Resource for Observational Marine Species Data – Marine Monitoring, Community Engagement & Collaborative Research</p> <p>Gary Jackson // Department of Fisheries, Western Australia</p>	
L1	<p>Fish Communities of Shallow Waikato Lakes. Where are the Longfins?</p> <p>Adam Daniel // Fish & Game New Zealand</p>	<p>Behaviour of the Australian Lungfish (<i>Neoceratodus forsteri</i>) During Flood Releases in a Large Impoundment Habitat</p> <p>David Roberts // Seqwater</p>	<p>Abiotic Limits on Larval Transport Shape a Species Distribution *</p> <p>Manna Warburton // University of Otago</p>
L2	<p>What is it Worth? An Exploration of Estuarine Ecosystem Services & Human Well-being (**)</p> <p>Kathryn Davies // the University of Auckland</p>	<p>The Rapid Expansion of Gross Eutrophic Zones in New River Estuary, Southland (2001–2012)</p> <p>Leigh Stevens // Wriggle Coastal Management</p>	<p>Discussion</p>
SG02	<p>Variability in the Importance of the Microbial Food Web Across the Chatham Rise</p> <p>Karl Safi // NIWA</p>	<p>Where Does All the Strontium Go? Osoloth Chemistry Insights from the Australian Synchrotron</p> <p>Zoe Doubleday // University of Adelaide</p>	<p>Anticancer Potentials of Fucoxanthin Contents Extracted from New Zealand <i>Undaria pinnatifida</i> (**)</p> <p>Kelvin Wang // Auckland University of Technology</p>
SG01	<p>Do Life History Strategies Drive Trout Interactions in a Species Complex of Non-migratory Galaxiids? (*)</p> <p>Peter Jones // University of Otago</p>		

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SESSION 3 // 10:00–11:00am // TUESDAY 20 August 2013

Location	Session Topic	10:00–10:15am	10:15–10:30am	10:30–10:45am
S104	SPECIAL SESSION: Estuaries: Christchurch Earthquakes Session Chair: John Zeddis	On 'Bloomin' Seaweeds & 'Bloody' Earthquakes – Changes in Nitrogen Biochemical Indicators in <i>Ulva</i> from the Avon Heathcote Estuary, Christchurch, Set in a National Context Neill Barr // NIWA	Responses of Estuarine Seaweeds to Season, Wastewater Discharges & the Christchurch Earthquakes ** Kristin Scheuer // University of Canterbury	Has Intertidal Mudflat Biodiversity Changed as a Result of Earthquake Disturbance? Islay Marsden // University of Canterbury
S102	SPECIAL SESSION: Microbiological Water Quality Modelling & Forecasting Session Chair: Jarrod Walker	Swimming in Auckland's Harbour Waters: Can We Predict the Risk to Swimmers? Jarrod Walker // Auckland Council	10 Years of Recreational Water Use Forecasting: a Look Back & a Look Forward Colin Roberts // DHI	Using a Microbial Water Quality Stream/Sediment Model to Explain Low-flow Microbial Persistence: Those Bleeding Sediments Graham McBride // NIWA
L2	SPECIAL SESSION: Whitebait: Important to Everyone Session Chair: Dave West	A West Coast Whitebaiters Perspective Des Moenney // West Coast Whitebaiters Association	The Role of Community in Whitebait – It's a Two Way River Kim Jones // Whitebait Connection, Mountains to Sea Conservation Trust	Managing the Unmanageable: Whitebait Hans Rook // Department of Conservation
L4	SPECIAL SESSION: Molecular Genetic Tools for Environmental Monitoring of Aquatic Habitats Session Chair: Susie Wood	SESSION KEYNOTE: Enhancing Environmental Biomonitoring Using Next-generation Sequencing (NGS) Tools Xavier Pochon // Cawthron Institute		Small-scale Variation In Bacterial Community Structure & Function within Freshwater Ponds Gavin Lear // The University of Auckland
L3	SPECIAL SESSION: Perspectives on Aquatic Biosecurity: Current State, Future Challenges Session Chair: Sharon De Luca	Challenges with Aquatic Weed Control: an Operational Perspective Marcus Girvan // Boffa Miskell Limited	"Weed Cordons", are They an Effective Biosecurity Tool? Hamish Lase // Bay of Plenty Regional Council	Matauranga, Science & Management – a Practical Solution! Hera Smith // Te Arawa Lakes Trust
SG02	FISH CULTIVATION Session Chair: Nick Ling	Cultivation of the Giant Kokopu (<i>Galaxias argenteus</i>) (*) Matthew Wylie // University of Otago	Food Preferences for Newly Caught Common Clownfish (<i>Amphiprion ocellaris</i>) in Captive Condition (***) Zulkifli Hamzah // University Technology Mara, Perlis	Mating Behaviour of Clownfish in a Tank-based System Norsila Daim // Centre For Ocean Research, Conservation & Advances
SG01	SEDIMENTATION DYNAMICS Session Chair: Andrew Swales	Long-term Trends & Drivers of Variability in Coastal Turbidity in the Hauraki Gulf (**) Blake Seers // The University of Auckland	The Effects Of Short- term Increases In Turbidity On Intertidal Microphytobenthic Productivity & Nutrient Fluxes ** Daniel Pratt // The University of Waikato	Revisited: Effects of Thin Terrestrial Sediment Deposits on Recruitment (**) Ayshe Hohaus // Auckland University of Technology

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SESSION 3

Location		10:45–11:00am
S104	Response of an Estuarine Community to Food Web to Eutrophication & Earthquake-driven Disturbance **	Jennifer Skilton // University of Canterbury
S102	Discussion	
L2	Degraded Inanga Spawning Habitat: Mending a Fishy Achilles Heel	Mike Hickford // University of Canterbury
L4	DNA Versus Microscopy – Can Molecular Techniques Replace Morphology for Cyanobacterial Analysis?	Gemma Gimenez Papiol // Cawthron Institute
L3	The Science Behind Successful Freshwater Biosecurity Management	John Clayton // NIWA
SG02		
SG01	Interactions Between Microphytobenthos & Macrofauna Regulate Intertidal Sediment Stability (**)	Rachel Harris // The University of Waikato

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SESSION 4 // 11:30am–12:45pm // TUESDAY 20 August 2013

Location	Session Topic	11:30–11:45pm	11:45–12:00pm	12:00–12:15pm
S104	SPECIAL SESSION: Estuaries: Ecosystem Functioning Session Chair: Drew Lohrer	The Importance of <i>Austrovenus stutchburyi</i> for Biodiversity-Ecosystem Functioning in an Intertidal Sandflat Candida Savage // University of Otago	Impact of Epibiotic & Parasites on Life History Parameters of Cockles in a Recovering Estuary ** Thomas Hildebrand // University of Canterbury	Larval Dispersal Amongst the Cockle (<i>Austrovenus stutchburyi</i>) Beds within Whangarei Harbour Niall Brookhuizen // NIWA
S102	SPECIAL SESSION: Southern Ocean & Antarctica (sponsored by Antarctic New Zealand & the New Zealand Antarctic Research Institute) Session Chair: Craig Stevens	SESSION KEYNOTE: Of Fat & Fish: Do Limitations in Membrane Remodelling Capacity Contribute to Narrow Temperature Tolerances of Polar Fish? Victoria Metcalf // Lincoln University		Past & Present Location of the Subtropical Front South of New Zealand Helen Neil // NIWA
L2	Continued... SPECIAL SESSION: Whitebait: Important to Everyone Session Chair: Dave West	Reconnecting Whitebait to the Places They Need to Be David West // Department of Conservation	Predicting Inanga Spawning Sites Using a GIS Model Graham Surney // Auckland Council	Taking Notice of Whitebaiting as a Value: the River Values Assessment System for Whitebaiting Kay Booth // Linds Consulting
L4	Continued... SPECIAL SESSION: Molecular Genetic Tools for Environmental Monitoring of Aquatic Habitats Session Chair: Susie Wood	Molecular Tools to Ensure Safe New Zealand Seafood – HABs Lesley Rhodes // Cawthron Institute	eDNA Detection Parameters Elise Furlan // The University of Canberra	Detection Implications of Environment Gradients, & Alternative eDNA Collection & Extraction Methods Lindsay Chadderton // The Nature Conservancy, Great Lakes Project
L3	Continued... SPECIAL SESSION: Perspectives on Aquatic Biosecurity: Current State, Future Challenges Session Chair: Sharon De Luca	Graduated-field Fish Barriers as Conservation Tools for Managers: Invasive Species Control & Downstream Guidance Applications Carl Burger // Smith- Root, Inc.	Eradication of Invasive Species from the South Island: Are we there Yet? Natasha Grainger // Department of Conservation	South Island Rudd – Just How Old are They & when are They Spawning? Helen McCaughan // Department of Conservation
SG02	HARMFUL ALGAL BLOOMS Session Chair: Kate McArthur	'Toxic in Crowds' – Mapping Cyanotoxin Production Across a Eutrophic Lake Jonathan Puddick // Cawthron Institute	Tracking Changes in the Community Composition of Toxic Benthic Cyanobacterial Mats in the Hutt River * Katie Brasell // Victoria University of Wellington	Unravelling the Mystery of Hutt River Cyanobacterial Blooms: Nutrient Inputs & Management Summer Greenfield // Greater Wellington Regional Council
SG01	Continued... SEDIMENTATION DYNAMICS Session Chair: Andrew Swales	Effect of Sediment Accumulation on the Productivity of Habitat- forming Seaweeds ** Edwin Ainley // The University of Auckland	The Effect of Suspended Sediment on Oxygen Consumption in <i>Halotis iris</i> (**) Taputukura Raso // Victoria University of Wellington	Sediment Impacts on Paua (<i>Halotis iris</i>) & Kina (<i>Evechinus chloroticus</i>): Building Indigenous Marine Science Capability Sonja Miller // Victoria University of Wellington

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SESSION 4 // 11:30am-12:45pm

Location	12:15-12:30pm	12:30-12:45pm
S104	Facilitation Cascades Increase Biodiversity in a New Zealand Estuary Mads Thomsen // University of Canterbury	Mechanisms Governing Degradation of Phytoplankton in Fjords ** Susanne Schüller // University of Otago
S102	Speculation on the Existence of a Victoria Land (Antarctica) Coastal Current Craig Stevens // NIWA, University of Auckland	
L2	Whitebait Population Dynamics in a Dynamic World (**) Eimear Egan // University of Canterbury	Inanga Reproduction: Putting Fewer Eggs into Multiple Baskets (**) Jessica Hill // University of Canterbury
L4	Using Environmental DNA to Detect the Presence of Brown Trout (<i>Salmo trutta</i>) in New Zealand Streams Jonathan Banks // Cawthron Institute	20 Years of Stability: Genetic Stock Structure of the Iconic Australian Barramundi (<i>Lates calcarator</i>) Carolyn Smith-Kaune // James Cook University
L3	Does Flow Variability Mitigate the Effect of an Invasive Alga (<i>Didymo</i>) on Stream Fish Communities? Phillip Jellyman // NIWA	<i>Codium fragile</i> : an Assessment of the Morphological & Genetic Variation in Native & Introduced Subspecies ** Phoebe Armitage // The University of Auckland
SG02	Are Low Water Column Dissolved Reactive Phosphorous Concentrations Essential for Benthic <i>Phormidium</i> Blooms & Toxin Production? * Mark Heath // Victoria University of Wellington	Controlling Nuisance Algae by Single Limiting Nutrient: Where's the Evidence? Kate McArthur // The Catalyst Group
SG01	Marine Reserve Resilience in Response to Sedimentation ** Diana Macpherson // The University of Waikato	

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SESSION 5 // 2:00–3:30pm // TUESDAY 20 August 2013

Location	Session Topic	2:00–2:15pm	2:15–2:30pm	2:30–2:45pm
S104	SPECIAL SESSION: Estuaries: Ecosystem Functioning Session Chair: Drew Lohrer	Measuring & Modelling Water Column Nutrients & Sea Lettuce Blooms in Tauranga Harbour (**) Alex Port // The University of Waikato	The Density Dependent Effects of Two Key Macrobenthic Species on the Breakdown of Ulva (**) Clarisse Niemand // The University of Waikato	A Big Body Essential to Inhabit Estuaries: a Study on Mysids of Southern New Zealand? * & ** Sourav Paul // University of Otago
L5	SPECIAL SESSION: Southern Ocean & Antarctica (sponsored by Antarctic New Zealand & the New Zealand Antarctic Research Institute) Session Chair: Craig Stevens	Oceanographic Inter- Annual Variability on the Campbell Plateau (**) Aitana Forcen-Vazquez // Victoria University of Wellington, NIWA	Ocean Circulation Under the Ross Ice Shelf and its Impact on the McMurdo Sound Region (**) Stefan Jendersie // University of Otago, NIWA	Effects of Ocean Acidification & Warming on Fertilisation & Larval Development in the Antarctic Bivalve, <i>Laternula elliptica</i> ** Christine Bylenga // Victoria University of Wellington
L1	Continued... SPECIAL SESSION: Threatened Freshwater Fish: Ecology & Management PART 2 Session Chair: Mark Lintamans	Effect of Salinity on Growth of Yarra Pygmy Perch *** Hillary Mahon // Flinders University	Mitigating Natural Barriers to Upstream Passage of Macquarie Perch Ben Broadhurst // University of Canberra	The Impacts of Flow & Temperature on Macquarie Perch (<i>Macquarie australasica</i>) Population Dynamics: Implications for Water Delivery & Threatened Species Management Charles Todd // Department of Environment & Primary Industries
SG01	Continued... SPECIAL SESSION: The Rena Grounding: Environmental Impacts & Recovery Session Chair: Chris Battershill	CV Rena: Overview of an Approximate BACI Design & Results of a Major Marine Pollution Incident David Schiel // University of Canterbury	The CV Rena Incident: A Warning Shot Across the Bow for Environmental Preparedness Chris Battershill // The University of Waikato	Riding an Oily Wave: Impacts of the CV Rena on Bay of Plenty Surf Clams ** David Culliford // The University of Waikato
L3	FISHERIES PART 1 Session Chair: Rik Butterworth	Spatially Explicit Ecological Risk Assessment to Inform Fisheries Management: Methods, Inferences, & Pitfalls Martin Cryer // Ministry for Primary Industries	Application of Light as a Bycatch Reduction Device (BRD) *** Darcie Hunt // Australian Maritime College	Tag-Recapture Models & Site-fidelity: What Happens when a Fish Goes on Its OE? ** Darcy Webber // Victoria University of Wellington
SG02	MARINE INVERTEBRATES PART 1 Session Chair: Kat Bolstad	Systematics & Ecology of Whip-lash Squid (Cephalopoda: <i>metastomatidae</i>) Found in New Zealand Waters ** Heather Braid // Auckland University of Technology	Global Biogeography of Razor Clams Hanih Saeedi // The University of Auckland	Reproduction & Larval Ecology of the Toheroa <i>Paphies ventricosa</i> in Southland, New Zealand ** Kendall Gadomski // University of Otago

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SESSION 5 // 2:00–3:30pm // TUESDAY 20 August 2013

Location	2:45–3:00pm	3:00–3:15pm	3:15–3:30pm
S104	Habitats at the Interface of Estuaries & Their Catchments: How to Consider Them in Coastal Marine Spatial Planning for the Kaipara Harbour ** Leanne Makey // Auckland University of Technology		
L5	Evaluating Ontogeny & Population Connectivity of Antarctic Toothfish (<i>Dissostichus mawsoni</i>) within the Ross Sea Using Otolith Chemistry * Raymond Tana // The University of Waikato	Brine Communities in Antarctic Sea Ice was Found to Have Silica & Phosphorus Limitations Francisco Vermeulen // Victoria University of Wellington	The Marine Reservoir Effect in the East Tasman Sea & Ocean-Atmosphere Carbon Exchange Helen Noll // NIWA
L1	Seasonal Movement Patterns of Macquarie Perch in Cotter Reservoir, Australian Capital Territory Rhian Clear // University of Canberra	Spawning Season Movements of a Threatened Native Fish, Macquarie Perch, in the Yarra River, Australia Wayne Koster // Arthur Rylah Institute for Environmental Research	The Management & Conservation of Freshwater Fish & Crustaceans of Polynesian Streams Philippe Gerbeaux // Department of Conservation, French Ichthyological Society
SG01	Oil Dispersal Modelling: Re-analysis of the Rena Oil Spill & Open-source Modelling Tools Hannah Jones // The University of Waikato	The Astrolabe Aftermath: Ecological Impacts of the CV RENA on the Rock where it All Went Down Phil Ross // The University of Waikato	The Effects of Short-term Exposure to Rena Heavy Fuel Oil & the Dispersant Corexit 9500 on the Early Life-stages of Seniole Islandi Simon Muncaster // Bay of Plenty Polytechnic
L3	Some Issues Encountered with Catch Rate Standardisation for Demersal Scalefish Fisheries in Western Australia Ross Marriott // Department of Fisheries, Western Australia	A Cross-sampling Method for Estimating Abundance & Detectability for Aggregated Population with Varying Local Abundance Shijie Zhou // CSIRO	
SG02	Habitats into Demography & Habitat Associations within & Outside Five New Zealand Marine Reserves ** Alix Lafreniere // Victoria University of Wellington	First Report of Anterior Tentacles in <i>Solen dactylus</i> from the Northern Persian Gulf, Iran ** Hanish Saeedi // The University of Auckland	Impacts of Small Arthropods on Algal Epiphytes Associated with Subtidal Coralline Turf ** Anna Berthelsen // The University of Auckland

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SESSION 6 // 10:00–11:00am // WEDNESDAY 21 August 2013

Location	Session Topic	10:00–10:15am	10:15–10:30am	10:30–10:45am
SG02	MARINE INVERTEBRATES PART 2 Session Chair: Phil Ross	Elucidating the Origin of Tetrodotoxin (**) Lauren Salvitti // University of Waikato	Are You what You Eat? Do <i>Pleurobranchaea maculata</i> Obtain Their Tetrodotoxin (TTX) Via a Dietary Source? (**) Serena Khor // The University of Waikato	Feeding, Metabolism, Nutrient Assimilation & Growth of Juvenile Sea Cucumbers (<i>Australostichopus mollis</i>) at Different Temperatures ** Leonardo Zamora // The University of Auckland
S104	SPECIAL SESSION: Developments in Research & Management of Snapper (<i>Pagrus Auratus</i>) in Australia & New Zealand Over the Last Decade PART 1 Session Chair: Tony Fowler	Status of Australian Snapper Stocks & Associated Fisheries Gary Jackson // Department of Fisheries, Western Australia	Forty Years of Monitoring the New Zealand Snapper Fisheries: What we Know we Don't Know Jeremy McKenzie // NIWA	A Life History Review for New Zealand Snapper Damen Parson // NIWA
L5	SPECIAL SESSION: Science at the Interface of International Management & Policy in High Seas Demersal Fisheries Session Chair: Mary Livingston	SESSION KEYNOTE: Global Expectations & Requirements for Science to Support High-seas Management Andrew Penney // Domestic Fisheries & Marine Environment		The International Framework Governing the Role of Science in High Seas Fisheries Rosemary Paterson // Ministry of Foreign Affairs & Trade
SG01	SPECIAL SESSION: The Ecological Impacts of Aquaculture Part 1 Session Chair: Rich Ford	SESSION KEYNOTE: The Impacts of Aquaculture on Ecology in New Zealand; a Literature Review Rich Ford // Ministry for Primary Industries		Cage-scale Dissolved Oxygen Variability: Clay Point Observations Joanne O'Callaghan // NIWA
L2	SPECIAL SESSION: Integrated Science & Management of Large Rivers & Floodplains Session Chair: Kevin Collier	High Intensity Survey & Multivariate Statistics Reveal Zones Along the Longitudinal Profile of the Lower Waikato River: Implications for Food Webs * Michael Pigram // Department of Conservation, The University of Waikato	The Meeting of the Waters: Tidal Dynamics & the Limit of Saltwater Influence in the Waikato River Hannah Jones // The University of Waikato	Smelt Life Histories within the Lower Waikato River Catchment Cindy Baker // NIWA
L4	SPECIAL SESSION: Gobies, Gudgeons & Bullies Session Chair: Brendan Ebner	SESSION KEYNOTE: Stunning Sicydlines in the Australian Wet Tropics Brendan Ebner // CSIRO, James Cook University		Variable Timing of Hatch & Early Ontogeny in Bluegill Bully (<i>Gobiomorphus hubbsi</i>) Gerard Cross // University of Otago
L3	RIVERS & STREAMS Session Chair: Brenda Baillie	Experimental & Modelling Studies of Fine Organic Particle Dynamics in Streams (*) Jennifer Drummond // NIWA, Northwestern University	Aquatic Fate of Herbicides in a Planted Forest Catchment Brenda Baillie // Scion	Rock Snot on Solid Ground: Long-term Stream Bed Stability & Didymo Blooms * Jonathan McCallum // University of Otago

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SESSION 6

Location 10:45–11:00am

SG02

Dicyemid Parasites as Biological Tags to Assess the Population Structure of *Sepia apama* ***

Sarah Catalano // University of Adelaide

S104

'Old Man Schnapper': Reconstructing 140 Years of the Queensland Pink Snapper (*Pagrus auratus*) Fishery

Ruth Thurstan // University of Queensland

L5

Management of Biodiversity on the High Seas – Using Ecologically & Biologically Significant Areas (EBSA) to Examine the Overlap of Values & Pressures on the High Seas

Piers Dunstan // CSIRO

SG01

Transport Non-linearities in Coastal Seas: Determining Source & Fate of Flow Through Aquaculture Installations

Craig Stevens // NIWA, The University of Auckland

L2

Restoration of Large-scale Wetland Ecosystems: Understanding the State, Functioning & Trajectory of Whangamarino Wetland

Hugh Robertson // Department of Conservation

L4

Length-Weight Relationship in the Goby, *Pterapogon kauderni* (Richardson, 1864), Caught from Mekong Delta, Vietnam ***

Minh Quang Dinh // Flinders University

L3

Periphyton & Nutrient Interactions Along the Tukituki River Under Drought, Wet & Normal Summers

John Quinn // NIWA

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SESSION 7 // 11:30am-12:45pm // WEDNESDAY 21 August 2013

Location	Session Topic	11:30-11:45pm	11:45-12:00pm	12:00-12:15pm
L1	MANAGING WATER QUALITY Session Chair: Mai Green	Lessons from Applying Regional & National Contaminant Load Models to Support Land-Water Management Sandy Elliot // NIWA	Sensitivity Analysis of a Catchment Model (SWAT) to Simulate Flow & Loads of Nutrients & Sediments in the Puaranga Stream, Rotorua Wang Me // Hohai University	Porirua Harbour – Part 1: Desperately Seeking Clarity Megan Oliver // Greater Wellington Regional Council
S104	Continued... SPECIAL SESSION: Developments in Research & Management of Snapper (<i>Pagrus auratus</i>) in Australia & New Zealand Over the Last Decade PART 1 Session Chair: Jeremy McKenzie	Changes in the Spatial Structure of South Australia's Snapper Fishery – Relate to Recruitment Anthony Fowler // South Australian Research & Development Institute	Recruitment of Snapper in Port Phillip Bay, Australia: Patterns & Processes Paul Hamer // Department of Environment & Primary Industries	The Early Life History of Snapper in the Kaipara Harbour – a Special Nursery Area for Snapper Carina Sim-Smith // The University of Auckland
L5	Continued... SPECIAL SESSION: Science at the Interface of International Management & Policy in High Seas Demersal Fisheries Session Chair: David Smith	The Interaction Between Habitat & Fisheries: The Case of Deep-Sea Seamounts Matt Dunn // Victoria University of Wellington	Management & Implications of Fishing Down the Slopes & Seamounts within the Tonga EEZ ** Tuikolonga Hau Halafih // University of Canterbury	High-seas Demersal & Pelagic Monitoring, Co-operative Approach with Industry, Technology & Methods Rudy Kloser // CSIRO
SG01	Continued... SPECIAL SESSION: The Ecological Impacts of Aquaculture PART 1 Session Chair: Rich Ford	Quantifying Benthic Enrichment from Salmon Farms Nigel Keeley // Cawthron Institute	Applying Enrichment Stage Tools for Offshore Mussel Farms Reid Forrest // Cawthron Institute	The Sulfide Footprint of Marine Farms ** Peter Wilson // Auckland University of Technology
L2	Continued... SPECIAL SESSION: Integrated Science & Management of Large Rivers & Floodplains Session Chair: Kevin Collier	Are Macroinvertebrates Effective Indicators of Ecological Stress in Large Rivers? Kevin Collier // Waikato Regional Council, The University of Waikato	Flood Protection & Aquatic Ecology: Investigating the Effects of Gravel Extraction on the Hutt River Alton Fernie // Greater Wellington Regional Council	Dispersal of the Invasive Oriental Weatherloach (<i>Microgobius anguillicaudatus</i>) in the Lower Murray River Post 2011 Flooding Lara Suitor // Department of Environment Water & Natural Resources
L4	Continued... SPECIAL SESSION: Gobies, Gudgeons & Bullies Session Chair: Brendan Ebnerur	Reproductive Biology & Early Life History Traits of the Eastern Blue Spot Goby, <i>Pseudogobius</i> Sp. Kathryn Hassell // Centre for Aquatic Pollution Identification & Management 2012 recipient of ASFB Early Career International Travel Scholarship	Isolation & Invasion: Gudgeons & Gobies in the Australian Arid-zone Adam Kerecsy // Bush Heritage Australia & Australian Rivers Institute, Griffith University	Assessing the Potential of Morphological & Pigmentation Larval Development Characters for Phylogenetic Analysis of Gobiidae Tony Miskiewicz // Wollongong City Council
L3	Continued... RIVERS & STREAMS Session Chair: Brenda Baillie	Ecological Effects of a Water Take on the Kaipatanga Stream, Wairarapa Brett Stansfield // Environmental Impact Assessments Limited	Kakanui River, Otago: Implications of Groundwater-Surface Water Interaction Rachel Ozanne // Otago Regional Council	Study of Shear Stress Effect in <i>Maccullochella peelii</i> Larvae Anna Navarro Cuenca // Charles Sturt University

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SESSION 7 // 11:30am–12:45pm

Location	12:15–12:30pm	12:30–12:45pm
L1	<p>Porirua Harbour – Part 2: Clarity by Setting Sediment Limits</p> <p>Malcolm Green // NIWA</p>	<p>Water Quality in Pegasus Bay: From the River to the Sea</p> <p>Fiona Deeth // Aquanet Consulting Ltd.</p>
S104	<p>Happy Snapper: Home is Where the Seagrass Sways (***)</p> <p>Tegan Evans // The University of Auckland</p>	<p>Juvenile Snapper & Their Seagrass Nurseries – a Tall of Undersea Meadows & Roving Small Fish Packs</p> <p>Meredith Lowe // NIWA</p>
L5	<p>Estimating Stock Size of Orange Roughy on Seamounts in the High Seas: What Can we do when we Don't Know Anything?</p> <p>Malcolm Clark // NIWA</p>	<p>Recent Update on Marine Protected Area Planning & design in the Ross Sea Region (Antarctica) Under CCAMLR (the Commission for the Conservation of Antarctic Marine Living Resources)</p> <p>Ben Sharp // Ministry for Primary Industries</p>
SG01	<p>Developing a Complementary Seed Supply for Year Round Greenshell™ Production **</p> <p>Rebecca Smith // The University of Auckland</p>	<p>Barra Gone Wild: Investigating the Genetic Consequences of a Large-scale Escape of Farmed Barramundi (<i>Lates calcarifer</i>) (***)</p> <p>Tansyn Noble // James Cook University</p>
L2	<p>Effects of Nutrient Losses on Stream Periphyton – a Modelling Study in Hawke's Bay</p> <p>Kit Rutherford // NIWA</p>	
L4	<p>A Fish in the Desert: Ecology & Behaviour of the Desert Goby <i>Chlamydogobius erasmii</i> ***</p> <p>Krystina Mossop // Monash University</p>	<p>Mass-marking Purple- spotted Gudgeon <i>Mogurnda adspersa</i> Larvae for Ecological Study</p> <p>Danwell Starns // The Australian National University</p>
L3	<p>Responses of Three New Zealand Native Fishes to Floods in a Small Stream</p> <p>Amber McEwan // Riverscapes Freshwater Ecology</p>	

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SESSION 8 // 2:00–3:30pm // WEDNESDAY 21 August 2013

Location	Session Topic	2:00–2:15pm	2:15–2:30pm	2:30–2:45pm
L1	Continued... MANAGING WATER QUALITY Session Chair: Mai Green	Linking Nitrogen & Carbon Cycling in the Coastal Ocean – Implications for CO ₂ Emissions, Ocean Acidification & Land Use John Zeldis // NIWA	Green in the Pristine: Extensive Subtidal Bloom of <i>Microdictyon umbilicatum</i> at Great Barrier Island, Northern New Zealand (**) Sarah Roth // The University of Auckland	Interactions of Stream Inflows with Lake Transport Processes: Effects on Nutrient Limitation Status of Phytoplankton David Hamilton // The University of Waikato
S104	Continued... SPECIAL SESSION: Developments in Research & Management of Snapper (<i>Pagrus auratus</i>) in Australia & New Zealand Over the Last Decade PART 1 Session Chair: Darren Parsons	Does Fishing Selectively Remove Snapper (<i>Pagrus auratus</i>) Fish with Bold Personalities? (***) Courtney Farthing // The University of Auckland	Detecting Recruitment Cross-subsidy: Snapper Dispersal from Leigh Marine Reserve Shane Lavery // The University of Auckland	Conventional Research-management of Western Australian Snapper Leading to Successful Stock Conservation & Fishery Outcomes Gary Jackson // Department of Fisheries, Western Australia
L3	SPECIAL SESSION: Estuaries: Mangroves Session Chair: Carolyn Lundquist	Overview of Current Research on New Zealand Mangrove Ecosystems Andrea Alfaro // Auckland University of Technology	Managing Mangrove Expansion in Northern New Zealand Estuaries Carolyn Lundquist // NIWA, University of Auckland	Do Mangroves Play a Major Role in the Geomorphic Evolution of New Zealand Estuaries? Andrew Swales // NIWA
L2	SPECIAL SESSION: Estuaries: Fish Session Chair: Qifeng Ye	Fish Assemblages in the Coorong (2006–2013): the Need for Freshwater Flows Qifeng Ye // South Australian Research & Development Institute	Biology & Behaviour for Modelling – Behaviour & Swimming Ability in Larval Black Bream (<i>Acanthopagrus butcheri</i>) (***) Eleanor Gee // The University of Melbourne	Mulloway Movement within the Glenelg River Estuary within South-Western Victoria & Beyond Jason Lieschke // Department of Environment & Primary Industries
L4	LAKES & WETLANDS PART 1 Session Chair: Marc Schallenberg	The Effects of Common Carp (<i>Cyprinus carpio</i>) on Zooplankton Diversity & Abundance: a Large-scale Field Experiment (*) Steve Woods // The University of Waikato	Wind Force – Stratification Interaction Time Lag Depends on Lake Morphology * Kohji Muraoka // The University of Waikato	Wind Forced Circulation in Lake Rotorua Max Gibbs // NIWA
SG01	MODELS IN INTEGRATED COASTAL MONITORING Session Chair: Chris Cornelisen	Towards Integrated Coastal Monitoring in the Waikato Region Hilke Giles // Waikato Regional Council	Modelling – Developing a Strategic & Dynamic Management Tool for the Marine Environment Vernon Pickett // Waikato Regional Council	Hydrodynamic Modelling of the Firth of Thames & Hauraki Gulf to Support Aquaculture Planning & Management Brett Baamsley // MetOcean Solutions Ltd

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SESSION 8 // 2:00–3:30pm // WEDNESDAY 21 August 2013

Location	2:45–3:00pm	3:00–3:15pm	3:15–3:30pm
L1	Is the Manawatu River Really the Worst in the West? Marise Clark // Horizons Regional Council	pH to P Max Gibbs // NIWA	
S104	Data Analysis & Modelling to Assist Management Decision Making for South Australian Snapper Richard McGarvey // South Australian Research & Development Institute	Considerations in Using the Daily Egg Production Method (DEPM) to Provide a Fishery-independent Estimate of Biomass for South Australia's Changing Snapper Fishery Mike Steer // South Australian Research & Development Institute	Development of Molecular Tools for Improved Identification of Snapper <i>Pagrus auratus</i> Eggs Joana Dias // WA Fisheries & Marine Research Laboratories
L3	Recovery Trajectories After Mangrove Removal Using In Situ Mulching Sarah Hallas // NIWA	Response of Temperate Intertidal Benthic Assemblages to Mangrove Detrital Inputs ** Rebecca Gladstone // The University of Waikato	
L2	Engineering Estuaries to Maximise Biodiversity, Species Protection & Resilience in the Great Barrier Reef Lagoon Nathan Waltham // TropWATER James Cook University	Linking Otoliths of Fish from Indigenous Middens to Modern Day Species: a Novel Approach Based on Otolith Morphology Bronwyn Gillanders // University of Adelaide	
L4	Adventures in Paradise: Determining the Reference (Pristine) Ecological Condition of New Zealand's Lakes Marc Schallenberg // University of Otago	Macrophytes & Monitoring – what Does LakeSPI Say About New Zealand Lakes? Mary de Winton // NIWA	Nutrient Enrichment Effects on Photosynthesis in the Wetland Plants <i>Jyphe orientalis</i> & <i>Phormium tenax</i> Brian Sorrell // Aarhus University
SG01	Aquaculture Effects Models to Inform Resource Management in the Firth of Thames Ben Knight // Cawthron Institute		

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SESSION 9 // 10:00–11:00am // THURSDAY 22 August 2013

Location	Session Topic	10:00–10:15am	10:15–10:30am	10:30–10:45am
SG02	LINKING RESEARCH, POLICY & MANAGEMENT Session Chair: Damen Parsons	Impacts of Humans on New Zealand Marine Ecosystems Since First Settlement: Synthesis of Major Findings & Management Implications Alison MacDiarmid // NIWA	Foodweb Modelling of the Hauraki Gulf: Integrating Archaeology, History, Fisheries Science & Ecology Matt Pinkerton // NIWA	Interactions Between Marine Mammals & Commercial Fisheries in New Zealand Waters Katrin Berkenbusch // Dragonfly Science
S104	ENVIRONMENTAL MONITORING PART 2 Session Chair: John Hayes	Trout Bioenergetic Drift Foraging Models for Interpreting Habitat Suitability for Instream Flow Needs Assessment John Hayes // Cawthron Institute	Development of a Sports Fisheries Quality Index for Assessing Effects of Agricultural Intensification Rasmus Gabrielsson // Cawthron Institute	Freshwater Fingerprints: Using Otolith Increment Biochronologies to Assess Broad Influences of River Inflows into Estuarine Habitats Christopher Izzo // The University of Adelaide
L2	SPECIAL SESSION: Science Communication at the Interface Session Chair: Kati Doehring	SESSION KEYNOTE: The 'Land & Water New Zealand' Web Tool – Where we've Come from & where we are Heading Katharina Doehring & Jo Bailey // Cawthron Institute		Don't Shoot the Messenger: Communicating Science to an Audience that Wants Your Blood Chris Battershill // The University of Waikato
L1	SPECIAL SESSION: Assessing & Managing Recreational Waters – Fresh & Coastal Waters Session Chair: Juliet Milne	Will I Get Sick if I Swim? Updating the National Microbiological Water Quality Guidelines for Recreational Waters Juliet Milne // Greater Wellington Regional Council	Assisting Water Resources Management Using Quantitative Microbial Risk Assessment Graham McBride // NIWA	Near Real-time Water Quality Monitoring in Shellfish Growing Waters Christopher Cornelissen // Cawthron Institute
SG01	MARINE INVERTEBRATES PART 3 Session Chair: Dan Pratt	Eye Development & Light Response in Deep-sea Cranchiid Squids Kat Bolstad // Auckland University of Technology	What's Going on with South Australia's Iconic Cuttlefish Spawning Aggregation? Mike Steer // South Australian Research & Development Institute	Development of Molecular Tools for the Detection & Discrimination of Potentially Invasive Mussel Species of the Genus <i>Perna</i> Joana Dias // Western Australia Fisheries & Marine Research Laboratories
L3	LAKES & WETLANDS PART 2 Session Chair: Marc Schallenberg	From Rivers to Reservoirs: Post-impoundment Growth & Recruitment of an Endangered Fish Zeb Tonkin // Arthur Rylah Institute for Environmental Research, DEPI	Benthic Enhancement Trial for the Hydro-electric Storage Lake – Lake Mahinarangi Richard Allibone // Golder Associates (NZ) Ltd	Effects of the Antihistamine Diphenhydramine on Algae & Biofilm Chuyen Phung // Monash University

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SESSION 9

Location 10:45–11:00am

SG02	Marine Protected Areas – Where are we at? Progress in Implementing the New Zealand MPA Policy Don Neale // Department of Conservation	
S104	Evaluation of the Use of Elastomer & Paint as Methods to Mark Lowland Longjaw Galaxias Nicholas Dunn // Department of Conservation	
L2	Looks DO Matter – Simple Visual Communication Helps Sell Your Science Bronwyn Gay // EOS Ecology	
L1	Monitoring Cyanobacteria in Recreational Waters – How Effective are the Current Guidelines? Susie Wood // Cawthron Institute	
SG01	Bryozoans of the Krusenstem Expedition Abigail Smith // University of Otago	
SG01	Identifying Morpho- functional Groups for Lake Geneva – a Key First Step to Model Phytoplankton Dynamic Succession Nicola Gallina // University of Geneva, The University of Waikato	

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SESSION 10 // 11:30am–12:45pm // THURSDAY 22 August 2013

Location	Session Topic	11:30–11:45pm	11:45–12:00pm	12:00–12:15pm
SG02	Continued... LINKING RESEARCH, POLICY & MANAGEMENT Session Chair: Karen Fisher	Great Australian Bight Collaborative Research Science Program: a New Partnership for a New Whole of Ecosystem Initiative Tim Ward // South Australian Research & Development Institute	BoP Rotorua Lakes Monitoring Programme: Linking Science & Policy to Plans Alastair Suren // Bay of Plenty Regional Council	Integrated Catchment Management – Striking the Balance Between Sports Fisheries, Biodiversity & Community Values in the Cardrona Catchment Matt Dale // Otago Regional Council
S104	SPECIAL SESSION: Recreational Fishing Session Chair: Michel Dedual	An Integrated Systems Approach to Estimating the Harvest of Marine Amateur Fisheries Neville Smith // Ministry for Primary Industries	The State of the Taupo Fishery & its Impact on the Level of Angling Participation Michel Dedual // Department of Conservation	Fine-tuning the Rotorua Lakes Stocking Program Matt Osborne // Fish & Game New Zealand
L2	Continued... Science Communication at the Interface Session Chair: Kati Doshring	Communicating Science Across the Marae Hannah Rainforth // Ngati Rangitikei Trust	Graphic Galaxids: Mapping the Interface Between Science & Society Jenny Rock // University of Otago	Science on Tap: Using Bayesian Networks to Inform Collaborative Water Planning in Hawke's Bay Richard Storey // NIWA
L1	Continued... SPECIAL SESSION: Assessing & Managing Recreational Waters – Fresh & Coastal Waters Session Chair: Juliet Milne	Stuck in the Mud: Biogeochemical Processes in Subtidal Sediments in the Firth of Thames, New Zealand Scott Nodder // NIWA	Developing Freshwater Objectives from Values: an Example from New Zealand Freshwater Fisheries Neil Deans // Fish & Game New Zealand	Temperature & Mass Dependence of N & P Excretion by Common Carp: Implications for Lake Nutrient Regimes Brendan Hicks // Department of Biological Sciences
L3	WASTEWATER/ STORMWATER DISCHARGE Session Chair: Keith Hamill	One Size Fits All? A Regulatory Approach to Utilising Discharge Limits to Achieve Improved Environmental Outcomes Justine Quinn // Auckland Council	Gold Coast Seaway SmartRelease: a Smarter Way for Managing Releases from Wastewater Treatment Plants Colin Roberts // DHI	Modelling of Dual Land & Water Discharge Systems Olivier Aussel // Aquanet Consulting Ltd
SG01	FISHERIES PART 2 Session Chair: Johnathan Staunton-Smith	Management Strategy Evaluation of Alternative CPUE Based Harvest Control Rules for Abalone Malcolm Haddon // CSIRO	Management Strategy Evaluation of the Robustness of Alternative Management Responses for Abalone Fay Holidonotis // CSIRO	Fine-scale Data Management of the New Zealand Commercial Pua Fishery Edward Abraham // Dragonfly Science

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SESSION 10 // 11:30am–12:45pm

Location	12:15–12:30pm	12:30–12:45pm
SG02	Fancy Meeting You in a Place Like This! – Fish Communities in the Waikato Land Drainage Network Michael Lake // Waikato Regional Council	
S104	Designing a National Panel Survey – Avoiding Historic Failures & Integrating Technology Andy Heinemann // National Research Bureau	The National Panel Survey 2011–12 – it's Mostly Snapper Andy Heinemann
L2	Engaging Ways to Present Information from Computational Hydro-ecological Models Colin Roberts // DHI	Non-human Charisma & its Role in Science Communication Sophie Fern // University of Otago
L1		
L3	Limits to Relying on Phosphorus to Control Periphyton Growth: Stuff Happens at the Interface with Algae Keith Hamill // River Lake Ltd	After the Outfall (and Fallout): Sediment Fluxes of Nutrients & Oxygen in the Avon Heathcote Estuary, Christchurch Craig Depree // NIWA
SG01	Comparison of Potential Management Controls for the White Banana Prawn Fishery in Australia's Northern Prawn Fishery Rik Buckworth // CSIRO	Marine Stewardship Council Certification of Western Australia's Fisheries Gary Jackson // Department of Fisheries

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SESSION 11 // 2:00–3:30pm // THURSDAY 22 August 2013

Location	Session Topic	2:00–2:15pm	2:15–2:30pm	2:30–2:45pm
SG02	FRESHWATER INVERTEBRATES Session Chair: Michelle Greenwood	To what Extent is Invertebrate Community Composition Across New Zealand's Rivers Related to Hydrological Regime? Doug Booker // NIWA	Influences of Hydrological Regime on Traits & Availability of Adult Aquatic Insects to Terrestrial Consumers Michelle Greenwood // NIWA	Habitat Suitability Curves for Aquatic Invertebrates in a Small New Zealand River Karen Shearer // Cawthron Institute
S104	<i>Continued...</i> SPECIAL SESSION: Recreational Fishing Session Chair: Michel Dedual	The Development of a Maximum Count Aerial-access Survey Method to Estimate Harvests from Large Scale Boat Based Fisheries Bruce Hartill // NIWA	Use of Web Cameras to Monitor Long Term Trends in Dynamic Recreational Fisheries Nicola Rush // NIWA	Amateur Harvest Estimates for Scallop & Rock Lobster in Bay of Plenty, New Zealand 2010–11 & 2011–12 John Holdsworth // Blue Water Marine Research Ltd
L2	SPECIAL SESSION: Marine Futures Session Chair: Simon Thrush	Environmental Futures in New Zealand's Marine Ecosystems: a Dynamic Approach Towards Managing for Resilience Simon Thrush // NIWA, University of Auckland	Defining the Risk of Cumulative Impacts to Marine Biodiversity Judi Hewitt // NIWA	A Changing Coastal Climate Over the Past Several Decades: the Biophysical Context for Ecological Changes & Marine Futures David Schiel // University of Canterbury
L1	MANAGING WATER QUALITY BY SETTING LIMITS Session Chair: Dean Olsen	Identifying Nutrient Load Targets for Waituna Lagoon: Some Tips when Setting Limits for Shallow Lake & Estuary System Marc Schallenberg // University of Otago	Managing Water Quality & Allocation in the Waianakara River Dean Olsen // Otago Regional Council	Lake Taupo & its Catchment: Are we Meeting the Limits? Bill Vant // Waikato Regional Council
L3	RESTORATION/ REHABILITATION Session Chair: John Quinn	Planning for a Healthy Avon River – the Avon River Precinct Anchor Project Shelley McMurtre // EOS Ecology	Revitalising New Zealand's Most Urbanised River – Putting Theory into Practice Alex James // EOS Ecology	Can Downstream Riparian Buffer Zones Enhance Pasture Stream Restoration within an Agricultural Landscape? Aslan Wright-Stow // NIWA
SG01	FISHERIES PART 3 Session Chair: Gary Jackson	Grey Mullet Nurseries & Connectivity – Where Did I Come from, Where Will I go? Mark Morrison // NIWA	Finding the Spawning Source of Victoria's King George Whiting Jodie Kamp // The Department of Primary Industries, Fisheries Victoria	Reproductive Biology & Fishery Status of Seabreams (Family: Sparidae) in Hong Kong & Adjacent Waters Sui Wai Cahlon Law // The University of Hong Kong
L4	SPECIAL SESSION: The Ecological Impacts of Aquaculture PART 2 Session Chair: Rich Ford	Dynamics of Reef Communities Situated Close to Salmon Farms Robyn Dunmore // Cawthron Institute	Toxic Scavengers, Zombies & Alien Invasions: Facilitation from Native & Invasive Bivalves for <i>Pleurobranchaea maculata</i> David Taylor // Cawthron Institute	<i>Alexandrium ostenella</i> Blooms are a New Problem for the Aquaculture Industry in the Marlborough Sounds Lincoln Mackenzie // Cawthron Institute

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SESSION 11 // 2:00–3:30pm // THURSDAY 22 August 2013

Location	2:45–3:00pm	3:00–3:15pm	3:15–3:30pm
SG02	Do Aquatic Insects Lay Their Eggs on One Rock Basket? Brian Smith // NIWA	The Reproductive Cycle of the Freshwater Mussel <i>Echyridella menziesii</i> in Lake Taupo, New Zealand Susan Clearwater // NIWA	Population Structure of Freshwater Mussels in the Raglan Catchment Mark Hamer // Waikato Regional Council
S104			
L2	Bringing Social Theory to Social-ecological Systems Research: New Zealand's Marine Futures Karen Fisher // The University of Auckland	The Many Voices of Manukau: a Participatory Approach to Mapping Ecosystem Services Kathryn Davies // The University of Auckland	Discussion
L1	In Search of Ecological Thresholds – What Can We Learn from Stressor-Response Relationships to Inform Limit Setting in Streams? Annika Wagenhoff // Cawthron Institute	A Simple Method for State of the Environment Reporting & Assessing Compliance Against Numerical Limits of Water Quality Standards Jim Cooke // Streamlined Environmental Ltd	In a Mess with Models Chris Arbuckle // Aspiring Environmental Ltd
L3	Functional Responses of Stream Ecosystems to Riparian Rehabilitation Roger Young // Cawthron Institute	Duck Creek Realignment: Fish Rescue Vaughan Keesing // Boffa Miskell Ltd	The Manawatu River Accord & the Freshstart to Freshwater Clean-up Fund Project Lucy Ferguson // Horizons Regional Council
SG01	Microsatellite Analyses Reveal Recruitment Relationships in New Zealand's Blackfoot Abalone (<i>paua</i>), <i>Haliotis iris</i> Tom McCowan // Paua Industry Council Ltd		
L4	Multi-disciplinary Approach to Study Larval Development Andrea Alfaro // Auckland University of Technology	Separating Natural Plankton Variability from Aquaculture-induced Change: New Simulation Modules for the Regional Ocean Model Niall Broekhuizen // NIWA	Influence of Climate on Pelorus Sound Mussel Aquaculture Yields: Predictive Models & Underlying Mechanisms John Zeldis // NIWA

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SESSION 12 // 4:15–5:00pm // THURSDAY 22 August 2013

Location	Session Topic	4:15–4:30pm	4:30–4:45pm	4:45–5:00pm
L3	SPECIAL SESSION: Lamprey: Threats, Abundance & Restoration Session Chair: Jane Kitson	Like Sands Through the Hourglass, These are the Days of Piharau Lives Cindy Baker // NIWA	What's Been Happening to Lampreys Down South? Kathy Walls // Ministry for Primary Industries	Southern Maori Perspective on the Management & Knowledge Needs for Kanakana (Geotria australis) Jane Kitson // Te Ao Marama Incorporated
L2	SHARKS & RAYS Session Chair: Malcolm Francis	Development of an Acoustic Method to Distinguish Elasmobranchs from Teleosts in the Field Ross Smith // Hydrobiology	Life at the Edge or the Best of Both Worlds: How do Pelagic Sharks & Rays Straddle the Interface Between Neritic & Oceanic Waters? Malcolm Francis // NIWA	
L1	CONTAMINANTS Session Chair: Craig Depree	What Have We Learnt from 14 Years of Marine Sediment Contaminant Monitoring in Auckland? Marcus Cameron // Auckland Council	Preliminary Validation of MAM-PEC Modelling of Copper Concentrations in Eight Auckland Marinas Marcus Cameron // Auckland Council	Fate & Effects of Estuarine Contaminants as Tracked by Stable Isotopes in Tauranga Harbour, New Zealand Julian Huteau // The University of Waikato
L4	FLAWS Session Chair: Richard Allibone	Management of Water Abstraction to Manage Effects on the Endangered Central Otago Roundhead Galaxias Richard Allibone // Golders	Resolving Small-scale Flows & Turbulence: Novel Measurements from Surface Fronts at Biologically Relevant Scales Julia Mullamey // The University of Waikato	

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APPENDIX 4: 2014 ASFB-ASL CONFERENCE PROGRAM

Program - Monday 30th June

07:30	Registration Open			
8:30-9:15	Opening Ceremony			
9:15-10:00	ASFB - Hall of Fame Presentation - Martin Gomon "The evolution of ASFB – reflections on 35 years of membership" #01			
10:00-10:30	MORNING TEA - Ground & 2nd Floor foyers			
10:30-11:15	ASL - Hilary Jolly Address - Leon Barmuta "Struggling with stochasticity: metaphors, narratives and evidence" #02			
11:15-12:00	ASL - Christy Fellows Lecture - Sarina Loo "Adaptive management: good in theory, hard in practice." #03			
12:00-13:00	LUNCH - Ground & 2nd Floor foyers			
TIME	SPECIAL SESSION - VIDEO WORK (BEHAVIOUR & ECOLOGY)	VEGETATION	CLIMATE CHANGE	MOLECULAR ECOLOGY/ GENETICS
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Ben Broadhurst	Chair: Amy George	Chair: Thor Saunders	Chair: Michael Hammer
13:00	Alistair Becker	Cherie Campbell	Jane Chambers	Aaron Davis
	Seeing with sound – the behaviour and movements of fish in estuaries. #4	Hydrological connectivity and the composition of aquatic and floodplain plant communities in the southern Murray-Darling Basin. #11	Restoration under Climate Change: anticipating shifting goalposts. #18	Fish adaptive radiation in the Australian context. #24
13:15	Andrew Berghuis	Jason Nicol	Geoffrey Collins	Peter Unmack
	Use of a DIDSON acoustic camera improves fishway assessment results and understanding of fish migratory behaviour. #5	Biodiversity benefits of erosion control plantings in the lakes Alexandrina and Albert, lower River Murray, South Australia. #12	Resting metabolism and hypoxia tolerance are conserved across genetically distinct sub-populations of an iconic, tropical Australian teleost (<i>Lates calcarifer</i>). #19	Phylogeny, biogeography and evolution of temperate perches (<i>Percichthyidae</i>). #25
13:30	Gavin Butler	Julie Schult	Colin Creighton	Laura Taillebois
	Using underwater video to study the breeding behaviour of Murray cod (<i>Maccullochella peelii</i>) in the Border Rivers region, New South Wales and Queensland. #6	The resilience of aquatic plants to wet season flood disturbance and dry season succession in the Daly River, tropical Australia. #13	Rethinking fisheries management as a combined response to changing climate, habitat & fishing pressure. #20	Fish adaptive radiation in the Australian context. #26
13:45	Cameron Fletcher	Fariba Moslih Pakdel	David Welch	Emma Razeng
	Conceptualizing the feeding and prey handling sequences of a muraenid. #7	Contrasting allelopathic effects of exotic and Australian macrophytes on cyanobacteria and green algae. #14	A semi-quantitative vulnerability assessment framework applied to northern Australian fisheries. #21	Contrasting patterns of gene flow among aquatic insects in Australian desert waters. #27
14:00	Christopher Fulton	Deborah Bogenhuber	Paul Hamer	Pierre Feutry
	Utility of underwater video for understanding fish swimming and foraging behaviour. #8	Understorey vegetation: evidence that more natural hydrological history results in more resilient plant communities. #15	Snapper spawning timing, migratory dynamics and water temperature: implications of climate change to snapper spawning behavior in south-east Australia. #22	Using whole mitogenome sequencing to inform population structure: the Critically Endangered Speartooth Shark <i>Glypis glypis</i> as a case study. #28
14:15	Danswell Starrs	Michael Reid	Slade Allen-Ankins	Samuel Williams
	Feeding behaviour of Murray River crayfish (<i>Euastacus armatus</i>) revealed using underwater video cameras in an upland river. #9	Ecological significance of hydrological connectivity for aquatic plant communities in billabongs. #16	Using a mechanistic approach to understand fish distributions along an altitudinal gradient: testing for thermal adaptation. #23	Genetic population structure of black marlin (<i>Istiompax indica</i>) within the central Indo-Pacific. #29
14:30	Aurelien Vivancos	Caitlin Johns		Melissa Carew
	Exploring the spatial structure of free-ranging fish groups using digital imaging techniques: a practical example with a shoaling drift-feeding fish (<i>Galaxias anomalus</i>). #10	How much do vegetation growth form, observer bias and data standardisation method affect repeatability of canopy cover estimates and power to detect change? #17		Developing next generation sequencing as routine monitoring tool in aquatic environments. #30

ASFB Student eligible for prizes/awards ASL Student eligible for prizes/awards



Program - Monday 30th June

TIME	SPECIAL SESSION - VIDEO WORK (SURVEY & DOCUMENTARY)	FISHERIES MANAGEMENT AND ASSESSMENT (1)	SPECIAL SESSION CSIRO'S ECOLOGICAL RESPONSES TO ALTERED FLOW REGIMES) 	MARINE ECOLOGY
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Nathan Waltham	Chair: Matt Taylor	Chair: Neil Sims	Chair: Michael Hammer
15:15	James Donaldson	Raouf Kalida	Neil Sims	Culum Brown
	Filming and Snorkelling as Mobile Visual Techniques to Survey Tropical Rainforest Stream Fauna. #31	Direct age determination in crustaceans is now possible: A novel technique. #37	The Ecological Responses to Altered Flow Regimes Cluster. #42	Ecological cognition in intertidal gobies. #49
15:30	David Harasti		Nick Bond	Merritt Adkins
	Seeing with sound – the behaviour and movements of fish in estuaries. #32		Developing spatial predictions of hydrology and fish distributions: the good, the bad and the ugly. #43	Community structure in littoral, intertidal and subtidal habitats of a tropical bay. #50
15:45	Dion Iervasi	Jesse Leland	Alice Brown	Emily Fobert
	Contrasting baited video with "traditional" survey methods for assessing freshwater fish assemblages. #33	Absolute age determination methods for subtropical decapods: growth mark interpretation and validation. #38	Optimisation for environmental flows: river model outputs to support decision-making in wetlands. #44	Choosing the right home: habitat detection and settlement decisions by a temperate reef fish on artificial reefs. #51
16:00	David Morgan	Mark Grubert	Carmel Pollino	Christopher Fulton
	Freshwater fish films and field guide for the Indian Ocean Drainage Division (Pilbara Province). #34	Defining an issue in space and time: A case study from the Northern Territory Mud Crab Fishery. #39	Optimisation models for Water Resource Planning. #45	Diverse habitat mosaics underpin rocky reef fish biodiversity within a marine protected area. #52
16:15	Sasha Whitmarsh	Darcie Hunt	Erin Peterson	James Smith
	Developing novel protocols for assessing environmental impacts using Baited Remote Underwater Video Stations (BRUVS) in marine environments in South Australia. #35	Trials of a light emitting BRD in the Moreton Bay prawn trawl fishery. #40	Identifying flow response indicators. #46	The effect of an artificial reef on fish abundance, tested using regression of point detections. #53
16:30	Cassandra James	Craig Noell	Ben Gawne	Steph Brodie
	Video assessment techniques for riparian habitat monitoring: testing the waters in the Wet Tropics. #36	From experimental trawling to MSC certification – forty years of transformation in an Australian prawn fishery. #41	The influence of single flow pulses on river ecosystems. #47	The oceanographic habitats of two migratory pelagic fish: dolphinfish (<i>mahi mahi</i>) and yellowtail kingfish. #55
16:45			Stuart Bunn	
	Discussion		Scientific collaboration in freshwater science. #48	
18:00-20:00	WELCOME FUNCTION - Parliament House (walking distance from Convention Centre) Sponsored by NT Government. 			

■ ASFB Student eligible for prizes/awards ■ ASL Student eligible for prizes/awards

Program - Tuesday 1st July

8:00	Registration Open			
8:30-8:45	Introductions (and Housekeeping)			
8:45-9:55	Kerry Prosper & Jane McMillan "Remobilizing Netukulimik: Indigenous cultural and spiritual connections with resource stewardship and fisheries management in Atlantic Canada" #56			
9:55-10:30	Julian Williams "Integrated Management of Freshwater Fisheries: cultural learnings and experience of Waikato-Tainui" #57			
10:30-11:30	MORNING TEA and POSTER SESSION - 2nd Floor foyer. POSTER SESSION sponsored by Fin Interest. 			
TIME	SPECIAL SESSION - TRAIT VARIATION: IT EXISTS AND IT MATTERS	MOVEMENT/ CONNECTIVITY (1)	FOOD WEBS	FISHERIES MANAGEMENT AND ASSESSMENT (2)
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: John Morrongiello	Chair: Craig Boys	Chair: Simon Townsend	Chair: Mark Grubert
11:30	John Morrongiello	David Crook	Sally Hatton	Mike Steer
	Trait variation: it exists and it matters (and are our fish shrinking?) #58	Wet season movements of barramundi and forktail catfish: the role of fish movement as a driver of food web subsidies in a tropical lowland river. #62	Diet change in Macquarie perch and rainbow trout in a newly filling reservoir. #67	Finding a balance between gear and effort based management strategies to promote stock recovery in South Australia's Garfish Fishery. #72
11:45	Geoff Tuck	Krystle Keller	Melissa Klamt	Kimberley Smith
	Modelling the consequences of differential fishing incidental mortality on susceptible behaviour types of wandering albatross. #59	The movement, fidelity and behaviour of non-recreational elasmobranchs associated with a Sydney Offshore Artificial Reef (OAR). #63	The trophic relationships of the platypus along an urban gradient. #68	Southern garfish (<i>Hyperhamphus melanochir</i>) on the west coast of WA: living fast and dying young. #73
12:00	Mark Kennard	Danswell Starrs	Agnes Lautenschlager	James P. Keating
	Inter- and intra-specific variation in freshwater fish life history traits and the role of hydrology, phylogeny and spatial structuring. #60	Mass-marking fish larvae via maternal transmission of enriched stable isotopes. #64	Using stable isotopes to identify important food sources of common fish associated with native and exotic riparian vegetation. #69	Combining indices of abundance from multiple surveys provides recruitment estimates for a widely distributed species in the NE Atlantic; Blue whiting. #74
12:15	Bruce Chessman	Elodie J.J. Ledee	Nicholas Moran	Timothy Emery
	Traits and fates: life history characteristics and the decline of native freshwater fishes. #61	Movement pattern and habitat use of giant trevally <i>Caranx ignobilis</i> in offshore reef habitats. #65	The Ecology of the Desert Goby: Community level interactions and individual level variability. #70	An experimental analysis of assignment problems and economic rent dissipation in quota managed fisheries. #75
12:30		Krystina Mossop	James Hitchcock	
	Discussion	Connectivity, phylogeography and behaviour of a desert-dwelling fish: does habitat matter? #66	Freshwater inflows to estuaries: do organic carbon subsidies support zooplankton production. #71	
12:45-13:45	LUNCH - Ground and 2nd Floor foyers			

 ASFB Student eligible for prizes/awards  ASL Student eligible for prizes/awards

Program - Tuesday 1st July

TIME	SPECIAL SESSION - SCIENCE COMMUNICATION IN THE PUBLIC SPHERE (1)	MOVEMENT/ CONNECTIVITY (2)	INVERTEBRATE ECOLOGY	ALIEN/INVASIVE SPECIES
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Krystina Mossop	Chair: Danswell Starrs	Chair: Erica Garcia	Chair: Zeb Tonkin
13:45	Adam Kerezy An Australian science communication case study based on the endangered fish red-finned blue-eye, <i>Scaturiginichthys vermeilipinnis</i> . #76	Jordan Matley Depth and space use of coral trout (<i>Plectropomus leopardus</i>) using passive acoustic tracking. #82	Jenny Davis Landscape-scale patterns of the diversity and distribution of Australian arid zone aquatic invertebrate communities. #88	Sherrie Chambers Exploring differences in genetic diversity and population structure of two estuarine fishes from Victoria: the exotic yellowfin goby <i>Acanthogobius flavimanus</i> and the native blue spot goby <i>Pseudogobius</i> sp. #94
14:00	Dianne Bray Engaging marine communities in climate science using their own data, and the learning curve of social media tools. #77	Peter Novak The importance of natural flow to the recruitment success of an amphidromous shrimp in tropical Northern Australia. #83	Patrick Bonney The resilience of macroinvertebrate assemblages to multiple sediment release operations in forested, headwater streams. #89	Michael Hammer Invasion of Siamese fighting fish (<i>Osphronemidae</i>) on the Adelaide River floodplain: the Northern Territory's first serious invasive pest fish. #95
14:15	Andrew Chin Hunting porcupines: using citizen scientists to collect data on rare stingrays to support research and conservation efforts. #78	Teagan Marzullo Divergent thermal performance thresholds in wild, co-habiting stingrays (<i>Dasyatis fluviorum</i> and <i>Trygonoptera testacea</i>). #84	Richard Marchant The productivity of the macroinvertebrate prey of the platypus in the upper Shoalhaven River, NSW. #90	Paul Brown Vagility and vulnerability: Dispersal of adult common carp (<i>Cyprinus carpio</i> L.) around the Murray-Darling River Basin, Australia. #96
14:30	Jo Wood iSPY Fish, You SPY Fish, We all SPY Fish. #79	Leanne Currey A mobile predator? Variable space and depth use patterns of an exploited coral reef fish. #85	Sylvia Hay Survival strategies of aquatic invertebrates as a response to drying in intermittent rivers. #91	Dean Gilligan The hard slog: Progress towards a National Carp Biocontrol Program. #97
14:45	Brendan Ebner Enhancing conservation of Australian freshwater ecosystems: identification of freshwater flagship fishes and relevant target audiences. #80	Sally Oughton Diadromous behaviours of three species of forktail catfish in the Daly River, Northern Territory. #86	Meredith Brainwood Now you see them, soon you won't—freshwater mussel conservation in Australia. #92	Charles Todd Modelling recruitment dynamics of carp under different flow scenarios. #98
15:00	Charlotte Jenkins Natural champions for fish habitat – building capacity in Australia's recreational fishing community through the Fish Habitat Network. #81	Fazlul Karim Hydrological connectivity between wetlands and rivers and its implication for fish biota: a case study for the Flinders catchment in north Queensland. #87	Judy Davies Cyclones, catchments and coastal streams: disturbing changes in macroinvertebrate assemblages over seven years. #93	John Koehn Managing flows and carp. #99
14:45-15:15	AFTERNOON TEA - Ground & 2nd Floor foyers			

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Program - Tuesday 1st July

TIME	SPECIAL SESSION - SCIENCE COMMUNICATION IN THE PUBLIC SPHERE (2)	ENVIRONMENTAL FLOWS (1)	ECOSYSTEM PROCESSES	FRESHWATER ECOLOGY (1)
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Susie Ho	Chair: Chris Humphrey	Chair: Darren Ryder	Chair: Angus Duguld
15:45	David Kirby	Keith Bishop	Amy George	Taylor Hunt
	Assessment of eco-labelling schemes for Pacific tuna fisheries. #100	Life after Kakadu: 25 years of pursuing and applying knowledge on hydro-ecological dynamics in the more complex rivers of north-eastern NSW. #106	Defining ecosystem processes for rehabilitation of Ranger uranium mine (NT). #111	Evaluating the additive effects of large-scale native fish stocking for enhancing recreational fishing. #117
16:00	Sarah Andrewartha		Peter O'Toole	Ros St Clair
	Engaging with the aquaculture industry to increase support for novel biosensor technology. #101		Riparian zones in flat sandy systems, are they up to scratch?. #112	DNA barcoding and ecological studies: Finding Large Hidden Genetic Variation. #119
16:15	Fern Hames & Anthony Townsend	Harry Eason	Simon Townsend	Caitlin Bartholomaeus
	Ensuring an enduring legacy: the multiple stories of the Native Fish Strategy. #102	River recovery: How do macroinvertebrate assemblages change once antecedent flows are restored following years of heavily modified flows? #107	Benthic algal resilience to frequent wet season disturbances by storm flows in low order streams in the Daly River, tropical Australia. #113	Science or citizen science? Which will save the Oblong turtle? #118
16:30	Jaana Dielenberg	Jason Thiem	Katherine Lacksen	Cathy Doidge
	Science Communication and Knowledge Adoption: what is the difference and why should I bother? #103	Larval abundance of cod (<i>Maccullochella</i> spp.) during targeted environmental watering in the Murrumbidgee River. #108	Can Top-Down Consumer Effects Be 'Scaled-Up'? #115	Fish spawning in the tropics - are low flows important? #120
16:30	Ben Gawne	Alan Couch	Erica Garcia	Chris Humphrey (for Lisa Chandler)
	Knowledge Brokers: Unique individuals or a flawed concept? #104	Recruitment Ecology of <i>Maccullochella</i> in the Upper Murrumbidgee 2011-2013. #109	Multi-scale comparison of stream metabolism within the wet/dry tropics. #114	Examination of sampling processing methods for macroinvertebrate community monitoring in tropical shallow billabongs. #121
16:45	Lee Belbin	Ann-Marie Rohlf	Jordan Iles	Belinda Robson
	Freshwater: A Gap in the Atlas of Living Australia. #105	Functional responses to environmental flows: linking benthic metabolism and dissolved organic carbon in the Snowy River. #110	Phosphorus limits seston and periphyton production in iron-rich dryland streams? #116	Do recolonization processes in intermittent streams have sustained effects on benthic algal density and assemblage composition? #122
17:15 onwards	MINDIL BEACH MARKETS - Buses depart from Convention Centre at 17.15			

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Program - Wednesday 2nd July

8:00	Registration Open			
8:30-8:45	Introductions (& Housekeeping)			
8:45-9:55	Stan Lui "Torres Strait Sea Country – Do we really know who makes the decisions?" #123			
9:55-10:30	Bo Carne "Valuing Indigenous engagement in fisheries research" #124			
10:30-11:00	Phil Duncan "Indigenous Voices in Water Rights - The NSW Experience" #125			
TIME	SPECIAL SESSION - FISH AND FLOWS (1) 	WETLANDS (1)	FRESHWATER ECOLOGY (2)	REHABILITATION AND RESTORATION (1)
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Alison King	Chair: Jason Nicol	Chair: Kathryn Hassell	Chair: Shane Penny
11:00	Nick Bond	Stephen Balcombe	Angus Duguid	Emily Maher
	Are native fish populations in the Murray River energy limited? #126	Seed banks on semi-arid floodplains in the northern Murray Darling Basin: Skippy is doing his bit. #132	Is Salinity the Key Driver of Fish Species Assemblage in Finkel River Waterholes? #138	Burnett River riparian stabilisation – practical examples of reducing sediment loads to the Great Barrier Reef. #144
11:15	Brenton Zampatti	Samantha Dawson	Felix Sauer	Morag Stewart
	Knowledge of age and provenance is fundamental to understanding flow-related reproductive response, recruitment and population dynamics in freshwater fish. #127	Soil seedbanks in a restoring floodplain wetland. #133	Effect of salinity on the ecosystem function, leaf decomposition: dryland salinity vs. salinity from a coal mine. #142	Channel bank stability (or lack of), the implications and rehabilitation options for the Mid Brisbane River. #145
11:30	Bronwyn Gillanders	Scott Strachan	Dave Galeotti	Jarod Lyon
	Multi-decadal biochronologies indicate species-specific responses to environmental change/variability in the River Murray estuary. #128	South lake: I know what you did last summer! #134	Habitat requirements for aestivation of <i>Galaxiella nigrostriata</i> during the dry phase of seasonal wetlands. #139	A Case Study for Measuring Outcomes from Large Management Interventions on Fishes: The Murray River Resnagging Experiment. #146
11:45	Zeb Tonkin	Wayne Erskine	Jim Wallace	Amber Briggs
	Investigating fish growth responses to flows in temperate floodplain rivers. #129	How efficient is wetland vegetation at trapping suspended sediment and bedload on Magela Creek in Northern Australia? #135	Potential impacts of water temperature on fish habitat in riverine waterholes in northern Australia. #140	Strengthening science to policy outcomes for waterways protection at a local level in the Kimberley, WA. #147
12:00	Wayne Koster	Teresa Mackintosh	Simon Mom	Ben Gawne
	Understanding fish behaviour and life history is critical to developing effective environmental flow regimes for native fish: a case study of Australian grayling. #130	The influence of urbanisation on wetland invertebrate biodiversity. #136	Resistance of two fishes with contrasting lifestyles to hypoxia: Links between metabolic and behavioural traits. #141	Monitoring and evaluating the outcomes of Commonwealth environmental water. #148
12:15	Dean Thorburn and Julie Crawford	Sarah Ning and Nicky Bruce	Jim Tait	Rhian Clear
	Responding to McArthur River flows: How environmental flows are driving an adaptive management program for sustainability of aquatic fauna. #131	Wetland Management in an Agricultural Landscape. #137	Water quality fish passage barriers caused by aquatic weed infestation and black water flow events on a tropical floodplain impacted by irrigated agriculture. #143	Research into the efficacy of fish screens in the Murrumbidgee to Googong water transfer scheme. #149
12:45-13:45	LUNCH & ASFB AGM - Waterfront Plenary Room			


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Program - Wednesday 2nd July

TIME	SPECIAL SESSION - FISH AND FLOWS (2)	INDIGENOUS PARTNERSHIPS (1)	THREATENED SPECIES (1)	BIOASSESSMENT/ MONITORING (1)
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Brenton Zampatti	Chair: Michael Douglas	Chair: Mark Lintermans	Chair: David Mossop
14:00	David Morgan & Stephen Beatty	Robyn Henderson	Rob Freeman	Paul Brown
	Vulnerability of Western Australian fishes to changing flow. #150	Working together for ecosystem health in Darwin Harbour. #153	Extinct habitat, extant species: lessons learned from conservation recovery actions for the Pedder galaxias (<i>Galaxias pedderensis</i>) in south-west Tasmania, Australia. #157	Fish and pools: Sampling 101 for ecologists. #162
14:15	Matt Taylor		Tarmo Raadik	Rebecca Wood
	Shock, stress or signal? Implications of freshwater flows for a top-level estuarine predator. #151		Twenty years of conservation management of threatened upland galaxiids (<i>Galaxiidae</i>): blood, sweat, tears... and a little joy. #158	Benthic diatoms as indicators of herbicide toxicity in rivers. #163
14:30	Alison King	Christy Davies, Yoshi Akune & Ninjana Walsham	Ben Broadhurst	Kathryn Hassell
	Understanding the influence of flow on spawning and recruitment in freshwater fishes: importance of life history, antecedent conditions and long-term data sets. #152	Collaborative research partnerships inform monitoring and management of freshwater habitats by traditional custodians. #154	Predation rates of two threatened species by trout. #159	Biomonitoring in Victorian estuaries using the Eastern blue spot goby, <i>Pseudogobius</i> sp. #164
14:45		Emma Ligtermoet	Scott Hardie	Mark Ellis
		Competing narratives? Contestation in managing floodplain country. #155	The low down on threatened paragalaxiids: interactions between fish ecology, habitats and hydrology are critical to population viability. #160	Factors affecting egg-laying responses of the freshwater snail, <i>Amerianna cumingi</i> , deployed in wet season toxicity monitoring of water quality. #165
15:00	Discussion	Irene Wegener & Kate Mason	Matthew Le Feuvre	Claudette Kellar
		Participation of Aboriginal communities in wetland management in the Natural Resources SA Murray-Darling Basin region. #156	Macro-ecological patterns and processes in the distribution and conservation status of Australian freshwater fishes. #161	Identifying the primary factors influencing aquatic ecosystem health in the Maribymong River. #166
15:15 -15:45	AFTERNOON TEA - Ground and 2nd Floor foyers			

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Program - Wednesday 2nd July

TIME	WETLANDS (2)	INDIGENOUS PARTNERSHIPS (2)	THREATENED SPECIES (2)	ASFB AWARD TALKS
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Adam Kerecsy	Chair: Thor Saunders	Chair: Scott Hardie	Chair: Gary Jackson
15:45	Fazlul Karim	Simon Xuereb	James Shelley	John Morrongiello
	Climate change impacts on changes in flow regime and hydrological connectivity of floodplain wetlands. #167	Increasing the science capability of Indigenous Marine Rangers. #172	ASFB 2013 Ben Chuwen Early Career Researcher International Travel Award. The Kimberley Ark: assessing and conserving freshwater fish biodiversity in Australia's last pristine river systems. #177	100 year assessment of biological change in SE Australian waters: Novel insights using fish otoliths. #182
16:00	Tsuyoshi Kobayashi	Stephan Schnierer	Lara Suitor	
	Soil and water impacts following wildfire: current and past biogeomorphology of Dunphy Lake in the Warrumbungle National Park, NSW. #168	Aboriginal cultural fishing in coastal far northern NSW. #173	Conservation of an endangered fish species Murray hardyhead (<i>Craterocephalus fluviatilis</i>) in the upper South Australian Murray-Darling Basin region. #178	
16:15	Nathan Ning	Kathryn Tebbutt	Mark Lintermans	Tim Emery
	Effects of hypoxic blackwater events on microinvertebrate and aquatic plant communities emerging from wetland sediments. #169	Coastal aquaculture in British Columbia: Perspectives from three indigenous communities. #174	ASFB 2013 Student International Travel Scholarship. Spawning dates of the endangered Macquarie perch in the regulated upper Murrumbidgee River. #179	Fishing for revenue: how leasing quota can be hazardous to your health. #183
16:30	Jonah Yick	Amber Clarke	Prudence McGuffie*	
	The eradication and management of European carp from two large freshwater lakes in Tasmania. #170	Victorian Traditional Owner involvement in waterway management. #175	Understanding natural spawning behaviors to enhance captive breeding success of endangered Macquarie perch (<i>Macquaria australasica</i>). #180	
16:45	Ashley Murphy	Jon Taylor	Kate Buckley	Wongyu Park
	How do widespread generalist fish species persist in the extreme arid environment of the Lake Eyre Basin, central Australia. #171	Capacity building and science mentorship for Indigenous communities. #176	The ecology of juvenile Large-tooth Sawfish <i>Pristis pristis</i> in the Adelaide River, Northern Territory: movement patterns and habitat use. #181	2016 World Fisheries Congress.
18:00 onwards	DECKCHAIR CINEMA - Walking distance from Convention Centre. Sponsored by WA Fisheries.			 Government of Western Australia Department of Fisheries

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*Student member of both ASFB and ASL


Program - Thursday 3rd July

8:00	Registration Open			
8:30-8:45	Introductions (and Housekeeping)			
8:45-9:20	Denis Rose & Danny Lovett "The Lake Condah restoration: combining traditional knowledge and science to reactivate Australia's oldest and largest traditional aquaculture system" #184			
9:20-9:55	Michael Douglas & Mona Liddy "Talking together, working together, walking together" #185			
9:55-10:30	Open session - invited speakers in meeting rooms informal Q&As			
10:30-11:00	MORNING TEA - Ground and 2nd Floor foyer			
TIME	FRESHWATER ECOLOGY (3)	ENVIRONMENTAL FLOWS (2)	BIOASSESSMENT/ MONITORING (2)	MOVEMENT/ CONNECTIVITY (3)
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Tom Rayner	Chair: Nick Bond	Chair: Mike Welch	Chair: Jason Thiem
11:00	Heather McGinness	Damien Burrows	Glenis McBurnie	Justin O'Connor
	Connecting land and water: understanding vertebrate fauna diversity in river floodplains and riparian zones. #186	Dams in Northern Australia – An Example of the Limnology of the Burdekin Falls Dam and its Effect on Downstream Environments. #191	The impact of feral camels on remote waterholes in the Katiti Petermann Aboriginal Land Trust. #196	Victorian Fishways- past, present, future. #201
11:15	Jarrod Kath	Jamie Corfield	David Mossop	Kris Pitman
	Groundwater as a key driver of freshwater water ecosystem responses to drought. #187	Ecological responses to changes in environmental flow release strategies for a temperate river system in NSW. #192	Gold mining contamination 150 years on: Using spatial analysis to identify 'hotspots' for a bioaccumulation study. #197	A multi-antennae passive integrated transponder (PIT) tag array improves fishway passage assessments in a vertical slot fishway. #202
11:30	Kevin Boland	Rebecca Lester	Yakuta Bhagat	Craig Boys
	'Darwin River Reservoir and Manton River Reservoir, Northern Territory; the role of hydrodynamic transport processes in risk assessment for the Darwin water supply. #188	Opening the flood gates: the compromises necessary to achieve environmental flow releases. #193	On the development of a new weighted average biotic index of water quality for Singapore's freshwater reservoirs. #198	Defining downstream fish passage guidelines for the protection of fish in the Murray-Darling Basin. #203
11:45	Matthew Colloff	Ivor Grouns	Alisha Steward	Jason Lieschke
	Long-term trends in condition of flow-dependent ecosystems of the Murray-Darling Basin. #189	The effects of altered flow and bed sediment on benthic macroinvertebrates in stream mesocosms. #194	How do we assess the health of rivers when they are dry? – Solutions using a novel approach. #199	Mulloway movement within the Glenelg River Estuary within Southwest Victoria. #204
12:00	Renee Bartolo	Simon Mitrovic	Tim Whiteside	
	Utility of Unmanned Aerial Systems for environmental monitoring of wetlands. #190	Benthic algal biomass and assemblage changes following environmental flow releases and unregulated tributary flows downstream of a major storage. #195	Quantifying changes in tropical wetland vegetation using time series high resolution satellite imagery. #200	
12:45-13:45	LUNCH & ASL AGM - Waterfront Plenary Room			

Program - Thursday 3rd July



TIME	SPECIAL SESSION - IMPROVING ESTUARINE HABITAT	ENVIRONMENTAL FLOWS (3)	RECREATIONAL FISHING	REHABILITATION AND RESTORATION (2)
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Paul Hamer	Chair: Rebecca Lester	Chair: Mark Grubert	Chair: Jarod Lyon
13:45	Colin Creighton Revitalising Australia's Estuaries. #205	Steve Nicol Environmental outcomes – can we substitute infrastructure for environmental water? #211	Liz Baker A social license to care: the challenges of involving recreational fishers in fish habitat rehabilitation. #217	David Hohnberg Making sense of all the monitoring. Why the synthesis of monitoring information is a key step in adaptive management and how it is being done for The Living Murray initiative. #223
14:00	Paul Hamer Shellfish – more than just an entrée: history and potential for restoration of the lost shellfish beds of Port Phillip Bay. #206	Christine Reid An Introduction to the Murray-Darling Basin Environmental Water Knowledge and Research Project. #212	Shane Griffiths A coordinated national data collection for recreational fishing in Australia: what's changed since the last national survey? #218	Geoff Park Setting and evaluating ecologically relevant water quality targets for the Great Barrier Reef – progress in the Burnett-Mary region. #224
14:15	Nathan Waltham Threats to the Great Barrier Reef World Heritage Area concomitant with an expanding coastal urban and industrial seascape. #207	Tom Rayner Regulated recruitment: native and alien fish responses to widespread floodplain inundation in the Macquarie Marshes, arid-Australia. #213	Gary Jackson Assessing the effectiveness of harvest tags in managing the recreational catch of snapper in Shark Bay, Western Australia. #219	Jonathan Marshall The global need to recognise and manage intermittently flowing rivers and streams. #225
14:30	Digby P Cyrus The effects of drought and anthropogenic activities on ecosystem state cycling and the fish fauna of Africa's largest estuarine lake. #208	Juan Livore Spatio-temporal variability of native flow-cued spawning fish larvae in association to environmental water in the lower River Murray. #214	Karina Ryan Meeting the requirement of recreational fisheries data for Integrated Fisheries Management. #220	David Ward Managing Inland NSW Aquatic Habitats – past, present and future planning tools. #226
14:45	Doug Harding Fifty shades of flow: catadromous fish migration in a regulated river. #209	Simon Townsend Testing/evaluating the use of fish habitat availability for monitoring the anthropogenic impact on dry season flows in the Katherine River, tropical Australia. #215	Alastair Hirst Sand flathead in Port Phillip Bay – story of a recreational fishery in decline. #221	Vannesa Adams Prioritizing management of dynamic threats in protected areas: a decision support tool for Kakadu National Park. #227
15:00	Paul Boon Coastal floodplains, wetlands and weeds: a bigger problem than commonly envisaged. #210	Tom Espinoza Environmental flows for Australian lungfish: From push-net to release valve. #216	Andy Moore The Changing Character of Recreational Fishing. #222	Susie Williams Fish parasites: just another tool for water planners working on a shoestring budget. #228
AFTERNOON TEA - Ground & 2nd Floor foyers				

Program - Thursday 3rd July

TIME		ECOLOGICAL MODELLING	FISHERIES MANAGEMENT AND ASSESSMENT (3)	FRESHWATER ECOLOGY (4)
	Waterfront Plenary Room	Meeting Room 2	Meeting Room 3	Meeting Room 4
	Chair: Jenny Davis and Jane Chambers	Chair: Carmel Pollino	Chair: Mike Steer	Chair: Peter Unmack
15:45	Barry Hart	Justine Murray	Jennifer Ovenden	Keith Martin
		Modelling population growth of river red gum and black box communities in relation to water availability. #230	A mark-recapture method using tissue genotyping for estimating the number of narrow-barred Spanish mackerel (<i>Scomberomorus commerson</i>). #233	Fine scale distribution of two lowland rainbowfish species in north-eastern Queensland. #236
16:00		Anna Rigosi	Grant Johnson	Michael Hammer
	Murray-Darling Basin Plan – My Involvement and Experience. #229	Lakes sensitivity to climate change and nutrients availability: a coupled hydrodynamic ecological modelling study. #231	A novel field method to reliably distinguish between the cryptic carcharhinid sharks, <i>Carcharhinus tilstoni</i> and <i>C. limbatus</i> . #234	Biodiversity discovery expedition to the Hindenburg Wall region, Papua New Guinea: Fishes, Frogs and Odonates. #237
16:15		Ryan Hooper	David Kirby	
		At The Coalface: Developing A Decision Support Tool To Assess Hydro-Ecological Risks To Lake Eyre Basin Rivers. #232	Standards for the effective management of fisheries bycatch. #235	
16:30 -16:50	CLOSING PLENARY			
18:00 onwards	CONGRESS DINNER - Darwin Ski Club - Buses depart from convention centre at 17.30, pick up from city centre 17.45. Sponsored by Conoco-Phillips			

APPENDIX 5: 2015 ASFB-ISSESR CONFERENCE PROGRAM


Program Monday 12 October 2015

820 - 825	Opening by Chair Matt Taylor	
825 - 830	Official Opening by Geoff Allen, Deputy Director General, NSW DPI-Fisheries	
830 - 845	Opening by Gary Jackson, President ASFB and Ron Essig, President AFS	
845 - 930	Keynote	<i>Room: Wattle, Thomas, Broadway</i>
845 - 930	Paul Lumley Using Indigenous Fishing Rights to Stimulate Restoration of Fish Populations	
930 - 1015	Keynote	<i>Room: Wattle, Thomas, Broadway</i>
930 - 1015	Marissa Baskett The role of rapid evolution in responses to stock enhancement and environmental change	
1015 - 1045	Morning Tea	
1045 - 1230	Integrating demo & gen pers on stock mgt & socio ec and gov cons	<i>Room: Wattle</i>
1045 - 1115	Michael Tringali Utilizing managed releases to maintain and, where necessary, restore genetic security in demographically challenged populations	
1115 - 1130	Enrique Blanco Gonzalez Genetic and phenotypic characterization of local and translocated corkwing wrasse (<i>Symphodus melops</i>) populations	
1130 - 1145	Taylor Hunt Economic cost-effectiveness of a fish stocking program for enhancing recreational fishing	
1145 - 1200	Ben Doolan Environmental and Social Benefits of Engaged Governance of Fish Stocking Activities	
1200 - 1215	Graeme Bowley New South Wales (NSW) Hatchery Quality Assurance Scheme	
1215 - 1230	Sarah Boyd Marine stocking in NSW..... moving ahead responsibly	
1045 - 1230	Threatened Species I	<i>Room: Thomas</i>
1045 - 1100	Mark Lintermans Comparing Sampling Methods For Detecting An Endangered Freshwater Fish	
1100 - 1115	Scott Raymond Ovens River Demonstration Reach	
1115 - 1130	Luke Pearce Patterns in abundance of southern pygmy perch and alien species in four New South Wales creeks	
1130 - 1145	Michael Hutchison Bringing back jungle perch	

1145 - 1200	Rhys Coleman Recovery Of Threatened Dwarf Galaxias In The Dandenong Valley, Melbourne	
1200 - 1215	William Gladstone Aerial surveys of juvenile white sharks in the Port Stephens nursery area: a step towards a baseline estimate of abundance	
1215 - 1230	Lauren Veale Restoration of coastal wetlands assisting in the recovery of threatened native fish	
1045 - 1230	Recreational Fisheries I	<i>Room: Broadway</i>
1045 - 1100	Lee Georgeson A Framework for Regular National Recreational Fishing Surveys	
1100 - 1115	Bruce Hartill Comparison of recreational harvest estimates provided concurrently by two independent large scale surveys in New Zealand	
1115 - 1130	Nicola Rush Use of web cameras to monitor long term trends in dynamic recreational fisheries	
1130 - 1145	Jane Zhao Development of Computer Vision Algorithms to Automate Web Camera Monitoring of Recreational Traffic at Boat Ramps	
1145 - 1200	Jeremy Lyle Key developments in the Tasmanian recreational fishery: Teasing out the impacts of the major drivers for change	
1200 - 1215	Marcus Lincoln-Smith Recreational Fishing and Dredging in Darwin Harbour	
1045 - 1230	Climate Change I	<i>Room: Jones</i>
1045 - 1100	Julian Hughes Top-down pressure on small pelagic fish by eastern Australian salmon <i>Arripis trutta</i> in a changing coastal pelagic ecosystem	
1100 - 1115	Jane Williamson Impacts of ocean acidification on eggs and larvae of Yellowfin Tuna, <i>Thunnus albacares</i>	
1115 - 1130	Stephen Mayfield Climate change challenge: predicting the influence of a changed physical environment on the Australian abalone fisheries	
1130 - 1145	Tullio Rossi Ocean acidification leaves dispersing fish larvae lost at sea	
1145 - 1200	Giverny Rodgers Damsels in distress: the effects of climate change on low-latitude coral reef fish and their potential for developmental acclimation.	
1200 - 1215	Michael Tropiano Tropicalisation Of The Reef Fish Community At Rottneest Island	

1215 - 1230	Paloma Matis Habitat specialisation and the influence of temperature: investigating behavioural plasticity in coral reef fishes	
1045 - 1230	Videos, Fish Behaviour I	<i>Room: Harris</i>
1045 - 1100	Evan Byrnes Individual Personality Differences in Port Jackson sharks (<i>Heterodontus portusjacksoni</i>)	
1100 - 1115	Tim Langlois Rapidly collected behavioral data predicts the effectiveness of periodically harvested closures in Fiji	
1115 - 1130	Dianne McLean BRUVS as a tool for assessing marine fisheries and ecosystems: hurdles and potential	
1130 - 1145	Dianne McLean Biogeographical patterns in fish assemblages of the remote Pilbara region, northwest Australia	
1145 - 1200	Matt Rees Rules Of Attraction: Enticing Pelagic Fish To Mid-water Video Systems	
1200 - 1215	Miles Parsons Some fish-chanting evenings: The contribution of fish choruses to soundscapes in Australian coastal waters and implications of sampling duration.	
1045 - 1230	Fish Biology, Ecology and Management	<i>Room: SC 1 and 2</i>
1045 - 1100	Charles Todd Murray Crayfish Management Model: Development And Utility	
1100 - 1115	Matthew Gordos Carp Separation Cage effectiveness in remote Australian lowland rivers: assessing ecological benefit and commercial viability.	
1115 - 1130	Ben Broadhurst Early response of Macquarie perch to enlargement of an upland reservoir	
1130 - 1145	Peter Unmack Comparative phylogenomics of four Murray-Darling Basin aquatic species	
1145 - 1200	Ashley Fowler Demography of the eastern blackspot pigfish <i>Bodianus unimaculatus</i> , a long-lived labrid inhabiting deep temperate reefs	
1200 - 1215	Ken McColl Cyprinid herpesvirus 3: a potential biological control agent for carp in Australia	
1215 - 1230	Peter Unmack The Ecology of <i>Gambusia holbrooki</i> in Edgbaston Springs	
1230 - 1315	Lunch	
1315 - 1515	Stock enh as a comp fish mgment tool	<i>Room: Wattle</i>
1315 - 1345	Kai Lorenzen Quantitative assessment of fisheries enhancements: a critical review	

1345 - 1400	Takaaki Kayaba An approach to restore the stock condition of a depleted species of flounder in Northern Japan: Elucidating the spawning ecology of stocked barfin flounder <i>Verasper moseri</i> for better fishery management	
1400 - 1415	Shinji Uehara Evaluation of the Effectiveness of Stocking Japanese Flounder	
1415 - 1430	Tom McCowan PaauMAX - Holistic Enhancement of New Zealand's Blackfoot Abalone (Paau) Resource	
1430 - 1445	Grant Leeworthy Potential for marine stock enhancement and spatial fisheries management in Victoria. Concepts, practice, policy needs, economics and sustainability.	
1445 - 1500	Lachie Jess Re-introduction of Trout cod in NSW - One million fish later	
1315 - 1515	Threatened Species II	<i>Room: Thomas</i>
1315 - 1330	Nick Whiterod Exploring the capacity of Murray crayfish (<i>Euastacus armatus</i>) to recover from significant population loss associated with a severe hypoxic blackwater event	
1330 - 1345	Mae Noble Habitat Specialisation In Threatened Murray Crayfish Occupying Upland Streams	
1345 - 1400	Stewart Fallon How to non-destructively age a protected fish with no otoliths, spines, or discernible scale annuli? With an atomic bomb!	
1400 - 1415	Lara Suitor Cross-border cooperation to streamline recovery actions for the endangered Murray hardyhead (<i>Craterocephalus fluviatilis</i>) in the southern Murray-Darling Basin	
1415 - 1430	Qifeng Ye Population dynamics and status of freshwater catfish (<i>Tandanus tandanus</i>) in the lower River Murray, South Australia	
1445 - 1500	Jonas Bylemans Combining traditional and environmental DNA (eDNA) based monitoring to improve the management of native and invasive fish species.	
1500 - 1515	Brendan Ebner Proposing the use of an ecoart platform to conserve Australian fishes	
1315 - 1515	Recreational Fisheries II	<i>Room: Broadway</i>
1315 - 1330	Jamin Forbes Murray Cod Creel Surveys - Finding Out What Really Goes On	
1330 - 1345	Faith Ochwada-Doyle Patterns of exploitation within Recreational Fishing Havens: implications for zonal management in NSW estuaries.	
1400 - 1415	Stephen Taylor Camera Surveys of Recreational Fishing in Western Australia	



1415 - 1430	Krystle Keller Estimating Fishing Catch and Effort from a Designed Artificial Reef	
1430 - 1445	Jeff Murphy Development of a flexible system for reporting recreational fishing data at fine spatial scales for Telephone/Diary surveys.	
1315 - 1515	Climate Change II	<i>Room: Jones</i>
1315 - 1330	Graeme Polewski Plasticity of tropical reef fish to future Sydney winters	 Government of Western Australia Department of Fisheries
1330 - 1345	Will Figueira Evaluating thermal performance reactions norms as a predictor of vagrant tropical fish success in temperate waters	
1345 - 1400	Chris Hallett Effects of climate change on estuarine fish communities of southwestern Australia	
1400 - 1415	Katherine Cure Evidence for poleward range shift in WA endemic <i>Choerodon rubescens</i>	
1415 - 1430	Gary Jackson The 2011 Marine Heatwave And Tropical Fish Off SW Australia	
1430 - 1445	Nathan Waltham Climate change increases thermal exposure of freshwater fishes occupying tropical seasonal rivers	
1445 - 1500	Laura Lopez Climate Change alters competition between Australian Bass and Mosquito fish	
1315 - 1515	Videos, Fish behaviour II	<i>Room: Harris</i>
1315 - 1330	Derrick Cruz Behavioural interactions between the threatened Australian native fish, <i>Bidyanus bidyanus</i> and the non-native, <i>Gambusia holbrooki</i>	
1330 - 1345	James Donaldson Video Monitoring of a Fish Assemblage in a Turbid Tropical Estuary	
1345 - 1400	Tim Langlois A Novel Stereo-Video Method to Investigate Fish-Habitat Relationships	
1400 - 1415	Alistair Becker Monitoring fish movements and behaviour through estuary mouths using high resolution acoustic cameras. Effects of tides, light and urban modification	
1315 - 1515	Reproduction, Early Life History And Recruitment I	<i>Room: SC 1 and 2</i>
1315 - 1330	Dan Warren Sexual ontogeny, sperm competition, and sperm performance in the bluehead wrasse	
1330 - 1345	Luke McPhan Temporal Growth Rates Of Murray Cod Larvae (<i>Maccullochella peelii</i>) In Relation To Prey Availability	

1345 - 1400	Danswell Starrs Can computed X-ray tomography reveal otolith growth increments?	
1400 - 1415	Brett Pflugrath Quantify Hydraulic Conditions Fish Encounter Passing Downstream Through River Infrastructure	
1415 - 1430	Tara Hicks The influence of maternal body size on fecundity and egg quality in Dusky flathead (<i>Platycephalus fuscus</i>).	
1430 - 1445	Caitlin Young Don't Blame It On The Moonlight: Abiotic Drivers Of Reproductive Development In Greentail Prawns, <i>Metapenaeus bennettiae</i>	
1445 - 1500	Anne-Marie Hegarty Reproductive Characteristics Of Teraglin, <i>Atractoscion aequidens</i> , Off The Coast Of NSW	
1515 - 1545 Afternoon Tea		
1545 - 1630	Stock enh as a comp fish mgmt tool II	<i>Room: Wattle</i>
1545 - 1600	Caleb Gardner The pathway from research on lobster translocation into a commercial enhancement enterprise	
1545 - 1630	ASFB Award talks	<i>Room: Broadway, Jones, Harris</i>
1545 - 1605	Christopher Izzo Seasonally Resolved Environmental Reconstructions Using Fish Otoliths	
1605 - 1625	John Morrongiello Otoliths: From Individuals to Assemblages in a Changing World	

Program Tuesday 13 October 2015

845 - 915	Opening Murray Darling Basin Native Fish Forum: Craig Copeland	
915 - 1000	Keynote MDB NFF	<i>Room: Wattle, Thomas</i>
915 - 1000	Martin Mallen-Cooper Does the natural flow paradigm need a rethink?	
930 - 1015	Murray Darling Basin Native Fish Forum	<i>Room: Wattle, Thomas</i>
930 - 945	John Koehn Environment flows and fish: Setting targets and making predictions.	
945 - 1000	Brenton Zampatti Disparate Responses of Invasive and Native Fishes to Engineered Floodplain Inundation and Natural Flooding	
845 - 930	Keynote	<i>Room: Broadway, Jones, Harris</i>
845 - 930	Kate Barclay How Can We evaluate the Social Contribution of Fisheries?	
930 - 1015	Keynote	<i>Room: Broadway, Jones, Harris</i>
930 - 1015	Caleb Gardner Increasing production in fully exploited fisheries	
1020 - 1045 Morning Tea		
1045 - 1230	Murray Darling Basin Native Fish Forum I	<i>Room: Wattle, Thomas</i>
1110 - 1125	Greg Ringwood Queensland Flood Recovery - rough and bumpy rivers	
1125 - 1140	Michael Hutchison Fish And Strips: A Case Where Less Is More	
1140 - 1155	Zeb Tonkin Prioritising instream woody habitat restoration for fish across Victoria: Case studies, knowledge gaps and future direction	
1155 - 1210	Matt Hansen Recreational fishers leading fish habitat rehabilitation	
1045 - 1230	Productivity & Profitability in Fisheries I	<i>Room: Broadway</i>
1045 - 1100	Malcolm Haddon Formal Harvest Strategies and Fishery Status Reporting	
1100 - 1115	Juan Carlos Quiróz Simulating harvest control under the new management framework of Patagonian Toothfish in Chile	
1115 - 1130	Jennifer Ovenden The spatial extent of western garfish stocks	
1130 - 1145	Annabel Jones Testing new boundaries: Efficient assessment of a complex harvest strategy for a MSC accredited prawn fishery	

1145 - 1200	Tim Ward Empowering industry to maximise fish size and quality in the South Australian Sardine Fishery
1200 - 1215	Crystal Beckmann Inter-annual Variability In Blue Swimmer Crab (<i>Portunus armatus</i>) Distribution In South Australia: Implications For Monitoring
1215 - 1230	Emily Fisher Applying EBFM in Western Australia: developing resource management strategies and harvest control rules that incorporate social, economic and sectoral allocation objectives
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1045 - 1230	Climate Change III & Reproduction, Early Life History and Recruitment II <i>Room: Jones</i>
1045 - 1100	Matthew Le Feuvre Thermal Limits of Northern Australian Freshwater Fishes
1100 - 1115	Garry Ogston Implications Of Climate Change On Aestivating Fishes
1115 - 1130	Jennifer Donelson Reproductive Performance Is Influenced By The Thermal Environment Experienced In Present And Previous Generations
1130 - 1145	Natalie Moltschanivskyj Using Redmap data as an early warning system for changes occurring in the marine environment: the value of community engagement through citizen science
1200 - 1215	Joel Williams Fine-scale vertical distribution of black bream <i>Acanthopagrus butcheri</i> larvae explains poor recruitment in the Blackwood River Estuary
1215 - 1230	Steven Hawes Vertical distribution of temperate reef fish larvae off NSW
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1045 - 1230	Evaluating Outcomes <i>Room: Harris</i>
1045 - 1115	Ken Leber Evolution of marine stock enhancement in Florida, USA
1115 - 1130	Shigenori Suzuki Stock enhancement of Tiger puffer (<i>Takifugu rubripes</i>) in the Tokai region of Japan assessed using a new method for the detection of released-fish
1130 - 1145	Yoshitaka Sakakura Evaluation of fish quality and microhabitat for release in the hatchery-reared tiger puffer juveniles
1145 - 1200	Ann-Lisbeth Agnalt Enriched environment promotes shelter-seeking and survival of hatchery-produced juvenile European lobster (<i>Homarus gammarus</i>)
1200 - 1215	Craig Blount Increasing Production from an Under-exploited Fishery - Enhancing the Yield and Colour of the Roe of the Urchin, <i>Centrostephanus rodgersii</i> , by Reducing Density or Transplanting Individuals

1215 - 1230	Ellen Sofie Grefsrud Exposure to predator odors enhances shelter seeking and competitive behaviour in hatchery reared juvenile European lobster (<i>Homarus gammarus</i>)	
1230 - 1315	Lunch	
1315 - 1500	Murray Darling Basin Native Fish Forum II	Room: Wattle, Thomas
1315 - 1330	Craig Boys Fish Under the Pump: The case for screening water diversions in the Murray-Darling Basin	
1330 - 1415	Keynote – Les Perkins Collaborative Fish Screening Pilot Projects for the MDB: What Lessons can be Learned from the Pacific Northwest United States	
1415 - 1430	Lee Baumgartner Rehabilitating an Australian Icon: The Sea to Hume Fish Passage Program	
1430 - 1445	Matthew Gordes Fishways - Cheaper or not at all?	
1315 - 1500	Productivity & Profitability in Fisheries II	Room: Broadway
1315 - 1330	Osman Samsun Pelagic fish catching efficiency in Marmara Sea, Turkey	
1330 - 1345	Tyson Martin Subsistence fishing on Pacific atolls can maintain near-pristine fish communities	
1345 - 1400	Neil Loneragan What's The Catch? Shark Fisheries In Eastern Indonesia	
1400 - 1415	Craig Mundy Expression of fishery trends at different spatial scales: at what scale does the crystal ball become cloudy?	
1415 - 1430	Anthony Fowler Understanding changes in spatial-structure of snapper fisheries in southern Australia	
1430 - 1445	John Stewart Cool, Windwept and Interesting ð” The New South Wales Sea Mullet Spawn Run Fishery	
1315 - 1500	MPAs & Marine Estate research & management	Room: Jones
1315 - 1330	Bob Creese Enhancing marine biodiversity conservation in the Hawkesbury Shelf marine bioregion	
1330 - 1345	Michelle Voyer Embracing complexity in Marine Protected Area governance	
1345 - 1400	John Ford Using Fishermens Local Knowledge to Guide Collaborative Management of Seagrass Habitat	


1400 - 1415	Nick Yabsley Resource type modifies the effects of reserves and connectivity on ecological functions	
1415 - 1430	Hamish Malcolm Planning guidelines for spatial management synthesised from three long-term (>10 yr) reef-fish studies in the Solitary Islands Marine Park	
1430 - 1445	Renata Ferrari Legorreta Predicting fish distributions for marine spatial planning in MARXAN	
1445 - 1500	Lynna Beckley Benchmarking human use of Eighty Mile Beach Marine Park prior to implementation of the management plan	
1315 - 1500	Evaluating Outcomes & Adv in aquacult tech	Room: Harris
1315 - 1330	Neil Loneragan Understanding the ecology of the Western School Prawn to maximize restocking success	
1330 - 1345	Christopher Setio A responsible stocking program for Eastern king prawns (<i>Penaeus plebejus</i>) in Australia	
1345 - 1400	Peggy O'Donnell Maximising Benefits and Minimising Adverse Impacts from Marine Stocking: A Case Study from Australia	
1400 - 1415	Cathy Hair Optimising Methods for Community-based sea cucumber Ranching: Experimental releases of cultured Juvenile <i>Holothuria Scabra</i> into PNG Seagrass Meadows	
1415 - 1430	Reg Blaylock Hatchery Related Effects on Post-Release Survival of Spotted Seatrout <i>Cynoscion nebulosus</i>	
1430 - 1445	Gavin Partridge The development of techniques for the collection of fertilised snapper <i>Chrysophrys auratus</i> eggs from Cockburn Sound spawning aggregations and their culture for enhancement purposes.	
1500 - 1530	Afternoon Tea	
1530 - 1700	Murray Darling Basin Native Fish Forum III	Room: Wattle, Thomas
1530 - 1545	Keller Kopf Invasive species and river regulation turn Murray-Darling Basin fish assemblage structure upside down	
1545 - 1600	Matt Barwick The countdown to Carp control: progress with implementation of a biological control program for Common carp in Australia	
1600 - 1615	Jamin Forbes Effectiveness of Murray cod and golden perch stocking in MDB waterways: contrasting systems, targets and life-history	
1530 - 1700	Productivity & Profitability in Fisheries III	Room: Broadway
1530 - 1545	Emily Fisher MSC certification with limited data: to B or not to B?	
1545 - 1600	Samantha Sherman How effective is Australia's management of sharks in commercial fisheries?	
1600 - 1615	Stuart Sexton Characterising the spawning patterns of jack mackerel (<i>Trachurus declivis</i>) off eastern Australia to optimise future survey design	
1530 - 1700	Technology & ecology - telemetry & connectivity I	Room: Jones
1530 - 1545	Anthony Fowler Movement Of Snapper (<i>Chrysophrys auratus</i>) In South Australia From Acoustic Telemetry	
1545 - 1600	Nathan Knott Movement of fishes among reefs and over soft sediments within a temperate embayment: the necessity and implication of movement data for spatial management.	
1600 - 1615	Jan-Olaf Meynecke PIT-tagged: Investigating the movement of estuarine fish and crustaceans	
1530 - 1700	Advances in aquacult tech	Room: Harris
1530 - 1545	Fletcher Warren-Myers Enriched Stable Isotope Mass Marking Techniques For Aquaculture And Restocking	
1545 - 1600	Ryo Kawabe Thermal regimes during the spawning migration of the barfin flounder (<i>Verasper moseri</i>) and its link to final oocyte maturation and ovulation	
1600 - 1615	Nathan Brennan Stage-specific vulnerability of juvenile common snook to spinal deformity: morphological responses to water velocity and rearing environment	



Program Wednesday 14 October 2015

845 - 930	Keynote	<i>Room: Wattle, Thomas, Broadway</i>
845 - 930	Dean Jerry Spyglass into aquatic biological diversity - use of environmental DNA (eDNA) to detect rare and invasive species	
930 - 1015	Keynote	<i>Room: Wattle, Thomas, Broadway</i>
930 - 1015	Brad Adams Sea Ranching Of Abalone - Flinders Bay, Western Australia	
1015 - 1045	Morning Tea	
1045 - 1230	Adapting to a changing env & Artificial Habitat I	<i>Room: Wattle</i>
1045 - 1100	Jay R Gorospe Growth And Survival Of <i>Holothuria scabra</i> Juveniles In Bottom-set Trays	
1100 - 1115	Jon Altamirano Challenges in Tiger Shrimp Stock Enhancement in the Philippines	
1115 - 1130	Marie Antonette Juinio-Menez Adaptive And Integrated Culture Production Systems For <i>Holothuria scabra</i>	
1130 - 1145	Jon Altamirano Substrate Preference of Sandfish <i>Holothuria scabra</i> juveniles: Implications for Grow-out and Sea Ranching	
1145 - 1200	Lachlan Strain Stock Recovery Initiative For A Commercial Roes Abalone Fishery Decimated By An Environmental Event.	
1215 - 1230	Michael Lowry Role of research in the development of NSW Artificial Reef Program.	
1045 - 1230	Environmental Flows I	<i>Room: Thomas</i>
1045 - 1100	Jonathan Marshall The Queensland approach to assessing environmental flows	
1100 - 1115	Peter Negus Q-catchments: an adaptive monitoring program using fish as an indicator of riverine condition	
1115 - 1130	Wayne Koster Links Between Riverine Flow Regimes And Movement And Reproduction Of Golden Perch	
1130 - 1145	Doug Harding Catadromous Fish Migration: Can Dam Releases Match Natural Flow Cues?	
1145 - 1200	David Crook 'Life history pressure points' as a basis for environmental flow development	
1200 - 1215	Frank Amstaeetter Environmental flow releases trigger spawning migrations by Australian grayling <i>Prototroctes maraena</i> , a threatened, diadromous fish	
1215 - 1230	Ryan Woods Molecular measures of population viability in response to altered flow regimes	

1045 - 1230	Technology & ecology - telemetry & connectivity II	<i>Room: Broadway</i>
1045 - 1100	Lachlan Fetterplace Are Soft Sediment Fishes Always Highly Mobile? An Assessment Of The Movement Patterns Of The Bluespotted Flathead	
1100 - 1115	Christopher Henderson The relationship of home range and marine protected area size for the Giant Shoalnose Ray (<i>Glaucostegus typus</i>).	
1115 - 1130	Leanne Currey Assessing Fine-Scale Diel Movement Patterns Of An Exploited Reef Fish	
1130 - 1145	Russ Babcock Environmental influences on the behaviour of <i>Lethrinus nebulosus</i> at Ningaloo reef	
1145 - 1200	Gwenaél Cadiou Drivers of temporal and spatial movement patterns in <i>Girella tricuspidata</i>	
1200 - 1215	Jordan Matley Sympatric Coral Trout Niche Partitioning Indicated By Movement And Diet	
1215 - 1230	Daniel Yeoh Divergent use of a south-western Australian estuary by four key recreational fish species: evidence from acoustic telemetry	
1045 - 1230	Estuarine & coastal connectivity I	<i>Room: Jones</i>
1045 - 1100	Ronald Baker Life-History Movements Of The World's Toughest Sport Fish	
1100 - 1115	Hayden Schilling The Role of Fish Predation in Estuarine Zooplankton Biomass Variation	
1115 - 1130	Christopher Fulton Habitat Quality Drives Seasonal Hotspots In Seaweed-Associated Fishes	
1130 - 1145	Alexia Dubuc Dissolved Oxygen In Mangrove Ecosystems And Impacts As Productive Habitat	
1145 - 1200	Carlo Mattone The Value of Mangrove Forests as Fish Feeding Ground.	
1200 - 1215	Michael Bradley Re-writing the link between mangroves and fish	
1215 - 1230	Martha Brians Identifying important fish habitats through archived catch data, a tropical Australia case study	
1045 - 1230	Recreational Fisheries III	<i>Room: Harris</i>
1045 - 1100	Claudia Trave Survivorship And Recovery Of Fish Species Subjected To Catch-and-release Practices	
1100 - 1115	Sean Tracey Capture stress and post-release survival of Southern Bluefin Tuna from recreational fishing	

1115 - 1130	Sam Williams Sustainable sampling: the non-lethal tissue sampling of recreational species by citizen scientists	
1230 - 1315 Lunch		
1315 - 1500	Artificial Habitat II	Room: Wattle
1315 - 1330	Kate Reeds Sydney Offshore Artificial Reef: Benthos and Demersal Fish Gradient Study	 Department of Primary Industries
1330 - 1345	Molly Scott The Influence Of An Offshore Artificial Reef On The Abundance Of Fish In The Surrounding Pelagic Environment	
1345 - 1400	Shinjiro Ushima Artificial reef materials, orientation and predation on the epibenthic community	
1400 - 1415	Curtis Champion Zooplanktivory a key process for fish production on a coastal artificial reef	
1415 - 1430	Aaron Davis Conservation potential of anthropogenic waterbodies on a heavily modified agricultural floodplain	
1430 - 1445	Brendan Lanham Do boat moorings alter fish community composition in an urban estuary?	
1445 - 1500	Heath Folpp A best practice guide to development and evaluation of designed reef programs. Lessons learnt from a NSW perspective	
1315 - 1500	Environmental Flows II	Room: Thomas
1315 - 1330	Daniel Stoessel The rise and fall of the Snowy River: consequence of altered flow regime on Australian bass	
1330 - 1345	Heleena Bamford Basin-wide Environmental Watering Strategy For The Murray-Darling Basin	
1345 - 1400	Fiona Small No Flow, No Go! Diadromous Fish Movement In Central Queensland.	
1345 - 1415	Andrew McDougall Ecological Risk Assessment Of The Burnett Basin Water Resource Plan	
1415 - 1430	John Morrongiello Quantifying the Freshwater Flow Requirements of Estuarine Fish	
1430 - 1445	John Koehn Using a Population model to manage flows and carp	
1445 - 1500	Zeb Tonkin Recruitment dynamics through time and space: A multi-population investigation of Macquarie perch recruitment across Victoria	

1315 - 1500	Technology & ecology - telemetry & connectivity III	<i>Room: Broadway</i>
1315 - 1330	Andre Steckenreuter Optimising the Integrity of a National Network of Acoustic Telemetry Research Infrastructure in Australia	
1330 - 1345	Elodie Ledee Identifying Movement Patterns Of Reef Predators: A Network Modelling Approach	
1345 - 1400	Fernando Cagua High-precision, Low-cost Animal Positioning in Passive Acoustic Telemetry	
1400 - 1415	Mario Espinoza Partial Migration Of Marine Predators: Is Habitat The Key?	
1415 - 1430	Samantha Munroe Individual variation in juvenile blacktip shark movement patterns in a tropical coastal nursery	
1430 - 1445	Dylan Van Der Meulen Temperature-mediated spawning migrations of an estuarine dependent sillaginid	
1445 - 1500	Culum Brown Where are my PJs? Movement of Port Jackson sharks at breeding aggregation sites	
1315 - 1500	Estuarine & coastal connectivity II	<i>Room: Jones</i>
1315 - 1330	Jakob Fries Detecting impacts of nutrient pollution in tropical Australian estuaries	
1330 - 1345	Joshua Van Lier Habitat Condition Underpins Fish Biodiversity Within Estuarine Sponge Gardens.	
1345 - 1400	Michael Corry The Functional Role of Soft Coral in Temperate Estuaries	
1400 - 1415	Geoffrey Collins Physiological plasticity versus inter-population variability: understanding drivers of hypoxia tolerance in a tropical estuarine fish	
1415 - 1430	Russell McWilliam Genetic patchiness among recruits of <i>Girella elevata</i> : spatial and temporal variation in genetic composition	
1430 - 1445	Lachlan McLeay A Biophysical Model To Assess Trade-offs In Larval Recruitment and Catch in Southern Australia's Largest Prawn Fishery	
1315 - 1500	Fish energetics and behaviour I	<i>Room: Harris</i>
1315 - 1345	Timothy Clark Fish energetics from the lab to the field: respirometry, tagging technologies, and understanding the impacts of climate change	
1345 - 1400	Teresa Iglesias The Unthinking Depths: Energetic Constraints On Encephalization In Marine Fishes	

1400 - 1415	Nastaran Mazloumi Swimming speed and oxygen consumption of adult King George whiting: influence of temperature	
1415 - 1430	Stephanie Brodie Improving consumption rate estimates by incorporating wild activity into bioenergetics models	
1430 - 1445	Kyle Tyler The response of juvenile Eastern King Prawns (<i>Melicertus plebejus</i>) to rapid changes in salinity associated with flooding of estuarine nurseries.	
1445 - 1500	Heidi Pethybridge Bioenergetics modelling of the fish and shark population dynamics to environmental fluctuations in SE Australia.	
1500 - 1530	Afternoon Tea	
1530 - 1715	Artificial Habitat III	<i>Room: Watfle</i>
1530 - 1545	David Booth UTS Decommissioning Ecology group: filling science gaps in evaluating oil and gas infrastructure options	
1545 - 1600	David Booth Righting the wrong: fish habitat enhancement of Harbour pontoons	
1600 - 1615	Ryan Paik Multi-purpose Marine Farm	
1615 - 1630	James Smith Estimating fish production on an artificial reef using Ecopath with Ecosim	
1630 - 1645	Iain Suthers Considerations of Tidal Flow for Enhancing Coastal and Estuarine Fisheries	
1645 - 1700	Paul Lewis Southwest Habitat Enhancement Structure Trial: A work in progress.	
1530 - 1715	Environmental Flows III	<i>Room: Thomas</i>
1530 - 1545	David Roberts eFlows And Physical Barriers To Catadromous Downstream Spawning Migration	
1545 - 1600	Dale McNeil The Ecology of Lake Eyre Basin Fishes: Hydro-climatic drivers and fish assemblage dynamics in Australia's Wetlands Desert River basin.	
1600 - 1615	Andrew McDougall Monitoring Environmental Flows In Queensland: The Next Generation	
1530 - 1715	Technology & ecology - telemetry & connectivity IIII	<i>Room: Broadway</i>
1530 - 1545	Barry Bruce Multi-year movements of juvenile white sharks in eastern Australia	
1545 - 1600	Jason Lieschke Where do the fish go? Acoustic tracking of brown trout in relation to increased summer water temperatures	
1600 - 1615	Wayne Koster Movement and Habitat Use Of The Threatened Australian Grayling	
1615 - 1630	Stephen Beatty Movement of Introduced Goldfish <i>Carassius auratus</i> : implications for control	
1630 - 1645	David Crook Integrating telemetric and biochronological data to elucidate movement patterns of riverine fish	
1530 - 1715	Estuarine & coastal connectivity III	<i>Room: Jones</i>
1530 - 1545	Jason Everett Eastern king prawn dispersal in eastern Australia: new information from particle tracking	
1545 - 1600	Stephen Beatty The Fish Faunas Of An Intermittently-Open, Seasonally Inverse Estuary	
1530 - 1715	Fish energetics and behaviour II	<i>Room: Harris</i>
1530 - 1545	Darcie Hunt Maximum swimming speeds of five finfish bycatch species from north-eastern Tasmania	
1545 - 1600	Jason Thiem Swimming Activity And Energetic Costs Of Adult Lake Sturgeon During Fishway Passage	
1600 - 1615	Nick Whiterod It eats, sits and that's about it: the bioenergetics of iconic sit-and-wait predator, the Murray cod	
1615 - 1630	Adrian Gleiss Seasonally Contrasting Physiological and Ecological performance question the "Warmer-is-Better" hypothesis for Juvenile fish	