

FRDC FINAL REPORT

SEVENTH INTERNATIONAL CONFERENCE AND WORKSHOP ON LOBSTER BIOLOGY AND MANAGEMENT

Stewart Frusher and Caleb Gardner

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The Fisheries Research and Development Corporation plans, invests in and manages fisheries research and development throughout Australia. It is a federal statutory authority jointly funded by the Australian Government and the fishing industry.

2003/301 Seventh International Conference and Workshop on Lobster Biology and Management

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1. Objectives

1. To host the 7th International Conference and Workshop on Lobster Biology and Management in Hobart
2. To publish the proceedings in a peer reviewed scientific journal

2. Non-Technical Summary

OUTCOMES ACHIEVED

Hosting the conference in Australia provided the opportunity to showcase Australian research and to enable a broader range of researchers to participate. Success in meeting the key message “That Australia is a leading provider of quality research and management of its lobster fisheries on a global scale” can be judged by the number of presentations. Australians were involved in 66 (43%) of the 155 oral and 12 (24%) of the poster presentations.

A further measure of success is the record number of oral and poster presentations received and the record number of countries that participated. The 7th International Conference was the largest held to-date.

The New Zealand Journal of Marine and Freshwater Research published the proceedings in two special issues: Volume 39/ Number 2 & Number 3/2005. The proceedings comprise forty nine papers of which 23 (47%) are from Australia or contain an Australian researcher.

The 7th International Conference and Workshop on Lobster Biology and Management (ICWL) was held in Hobart from 8th – 13 February 2004. Over 150 oral and 48 poster presentations were made from delegates from 19 countries.

Lobsters are one of the world's premier seafoods. They are found throughout the world's temperate and tropical oceans, in developed and developing countries and the demand for lobsters has resulted in major fisheries around the globe. These fisheries are based on three families: Nephropidae, the clawed lobsters, Palinuridae, the spiny lobsters and Scyllaridae, the slipper lobsters.

The global distribution of over 50 different species of lobsters has resulted in science and management occurring at different scales and the ICWL provides a focal point for scientists, managers and industry members to discuss and learn from their different experiences.

With such a broad distribution and commercial importance it is not surprising that lobsters have attracted considerable scientific research. Research needs are broad, including fisheries, management, conservation and more recently investigations of aquaculture. An indication of the extensive research activity around lobsters is the number of scientific publications- over 1000 have been produced in the last 5 years. Clearly lobsters are an important group of animals for investigation in the field of marine science.

Encouragingly, the quality of presentations and posters from students demonstrated that lobster research will continue to be both innovative and relevant for ensuring optimal allocation of lobster resources whether it be for commercial or recreational fishing, aquaculture or conservation uses.

The conference was opened by His Excellency Mr Richard Butler, the Governor of Tasmania. In welcoming delegates Mr Butler noted the global distribution of resources and encouraged scientists to pursue a truly global network, particularly in supporting those countries where scientific research and management support and infrastructure was limited. Both recreational and commercial fishing provide important social and economic benefits to rural coastal populations throughout the world. Understanding the biology and ecology of lobsters including their role in the ecosystem and the impact of harvesting was necessary for sustainable management.

Over the last few years' new challenges have emerged for scientists, managers and industry. Co-management and cooperative research is seen as the future model for managing the world's marine resources. Ecosystem based management has refocused research into metapopulation studies including marine protected areas (MPAs) and ecosystem modelling. High prices have also attracted interest in aquaculture and enhancement. Meeting these challenges has resulted in significant advances in the methods used to study lobster resources. These challenges were reflected in the presentations that covered themes of reproduction, disease, modelling and analysis, larval transport and recruitment, spatial patterns, environment and ecosystem interactions, behaviour, assessment methodology, tagging and growth, physiology, management and assessment, enhancement, aquaculture and husbandry and post-harvest.

It is not possible to capture the breadth of topics covered but there were several new highlights that are of interest to the Fishing Community. As noted by Dr Jim Penn (WA Fisheries) when introducing the management sessions: “allocation of marine resources is one of the ‘burning’ issues”. The three sectors currently seeking allocation are the commercial and recreational fisheries and the environmental lobby, the later being primarily through MPA’s at present. Research identified that managing displaced fishing effort is one of the core requirements when declaring MPAs. Taking the same catch or focusing the same effort on the reduced resource can have catastrophic impacts. Results from both Tasmanian and Spanish research organisations also demonstrated the need to understand the inter-specific interactions, particularly predator-prey relationships. While some fisheries did benefit from the ‘spillover’ effect of lobster moving out of the reserve and into the adjacent fishery, others had decreased lobster abundance through increased predation on juvenile lobsters. The emergence of social and ecosystem science in the conference to address the ESD agenda was also apparent with several papers aimed at broadening management decision making to include these interactions.

GIS studies had increased prominence including the combination of detailed habitat maps with developments in underwater video systems. Habitat mapping techniques are being combined with, accurate positioning of fishing gear and tagging studies to provide improved information on population sizes. Other talks related to population estimation highlighted the need for careful consideration of potential biases including growth rate estimates from tagging, catch composition from traps and catch rate data from fishers.

Larval transport and recruitment processes formed a significant part of the program confirming the importance and strategic significance of this research to managing lobster resources. Lobsters have a complicated and relatively long larval component of their life cycle that is mostly spent in oceanic waters. Substantial advances are being made in modelling transport and recruitment processes based on the collaboration between biologists and physical oceanographers. Subsequent discussions centred on incorporating further biological data into the modelling process. The forum provided an ideal opportunity for groups working in different parts of the world to foster connections and compare modelling techniques.

The aquaculture segment was the largest ever with 30 presentations, indicating its growing importance in countries as diverse as India, Mexico, Japan, USA and Australia. A highlight was the Japanese study in which phyllosoma larvae cultured from hatch had survival rates greater than 20%, much higher than any previous results, indicating that commercialisation of rock lobster aquaculture may be possible. The business of farming the Bay Lobster (Moreton Bay bug), which also has phyllosoma larvae, is now a reality in Queensland and a paper was presented on culturing of “soft-shell” Bay Lobsters for the USA market.

KEYWORDS: lobster, conference

3. Acknowledgments

Naturally a conference of this magnitude could not be achieved without the generous support of sponsors. We would like to thank the principal sponsor The Australian Government's Fisheries Research and Development Corporation. Other major sponsors included The Tasmanian Aquaculture and Fisheries Institute, The Australian Department of Environment and Heritage, the South Australian Research and Development Institute, Primary Industries and Resources South Australia, Western Australian Fisheries, The National Institute of Water and Atmosphere in New Zealand, The New Zealand Rock Lobster Industry, CSIRO, The Tasmanian Rock Lobster Fishermen's Association, the Department of Primary Industries Victoria, New South Wales Fisheries, the Department of Agriculture, Forestry and Fisheries Australia. Additional sponsorship was provided The Australian Institute of Marine Science, SANTOS, and Darden Restaurants.

Finally we would like to thank Conference Design for their management and planning of the Conference and the Staff of the Tasmanian Aquaculture and Fisheries Institute's Crustacean Section who handled all the 'behind the scenes' activities to ensure the smooth running of this conference.

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4. Background

Lobsters are one of the world's premier seafoods. The demand for lobster has resulted in major fisheries around the globe. Over the last few years new challenges have emerged for both scientists and managers. Ecosystem based management has refocused research into metapopulation studies including marine protected areas and ecosystem modeling. Incorporation of environmental and socio-economic performance indicators is a requirement for a new generation of fishery management plans. Record high prices have also attracted interest in aquaculture and enhancement. Meeting these challenges has resulted in significant advances in the methods used to study lobster resources. The 7th International Conference on Lobster Biology and management is being held in Hobart in 2004 and provides an unsurpassed opportunity for researchers, managers and industry to discuss worldwide trends in lobster fisheries and management. The last conference was held in Florida in 2000 with approximately 250 participants. The proceedings of this conference were published in a special issue of Marine and Freshwater Research.

5. Need

In 1999/2000 the estimated value of Australia's rock lobster industry was \$544 million and this represented 23% of the landed value of all Australian fisheries.

As Australia's premier fisheries export there is a need to ensure that our lobster fisheries are managed sustainably and that they clearly demonstrate to the world that our research and management is 'state-of-the-art' and 'worlds best practice'. By hosting this conference in Australia, it allowed the maximum number of fishery scientists, managers and industry representatives to attend and meet with scientists, managers and fishers associated with lobster fisheries around the world.

An area of particular interest to Australia includes lobster ecosystem models and assessment. There is a need in all of Australia's lobster fisheries to address ecosystem issues for both DEH accreditation and forthcoming ecological sustainable development requirements. In association with these requirements there is a need for Australia's premier fisheries export industry to obtain and maintain industry accreditation for current and developing markets. Several Australian States, with the support of the FRDC Rock Lobster and Aquaculture Subprogram are investigating the potential for a rock lobster aquaculture industry. To aid this development there was a need to be abreast of the latest developments around the world.

The conference also provided an opportunity to hear of the application of new technology and to form partnerships with experts pioneering new developments.

6. Issues that we experienced that need to be considered by future conference organisers

6.1 Conference Managers

In 2003/2004 conference managers cost approximately \$80 - \$100 per delegate. The managers are responsible for the webpage, registrations, co-ordination of events, budgeting and will organise other items including venue hire, promotional packages, t-shirts, printing, audio-visual equipment, satchels etc. In addition they have experience in local activities (for partners or post-/pre-conference activities) and have a range of formats for programs. Our experience was that this was money well spent. However, there were a number of issues that need to be considered. Firstly, the conference managers need to understand that biological conferences require considerable lead-in time so that delegates can prepare applications for travel grants and enable students to prepare for the conference (sourcing funds and planning experiments). Our experience was that the Conference Managers did not fully appreciate that 2 –3 years was an appropriate lead-in time and we had to consistently push for the webpage and subsequent amendments to be added.

6.2 Venue

Access is the main issue with the venue. Our choice reflected a need to keep the delegates together and maximise exposure to the poster demonstrations and sponsorship displays. Having the morning and afternoon teas and lunches adjacent to posters and displays worked well. Location was another important issue and feedback from delegates supported our choice. The visual outlook from the venue over the docks and the lobster fishing fleet was considered appropriate and International delegates were able to quickly gain an insight to the commercial fishing operations in Tasmania. Being central to cheaper accommodation and the tourist precinct were other favourable comments.

6.3 Sponsorship

This was the most difficult of all tasks. Our ability to attract funding was surprising to us given the importance of the lobster fishery (largest single species fishery in Australia), status of the conference (first time in Australia for 30 years) and the extent of research on lobsters in Australia.

There appears to be an increasing number of conferences occurring each year and competition for funds is high. In particular, a conference with a strong scientific background was 'hard to sell' to businesses. Pursuing the concept that "science underpins the sustainability of the resource which in-turn underpins the stability of the industry and investment" was unsuccessful when delivered by both scientists and industry. In addition to FRDC, the principal sponsor, sponsorship for this conference primarily came from State and National fisheries agencies and lobster fishing industries. Although we were unsuccessful, we would suggest that future conference organisers consider the Department of Education, Science and Technology's Innovative Access Programme – International Science and Technology Conference Funding (www.dest.gov.au/science/iap).

6.4 Audio-visual

Although each venue has an 'in-house' arrangement with an audio-visual agency, we decided to use TAFI support (technical and junior scientific) staff to undertake this task to achieve considerable cost-savings. Several training sessions and 'dry runs' resulted in a very successful audio-visual part of the conference that was praised by many delegates. In addition to the transfer of presentations into the respective sessions and transfer of these to the computer projectors, our staff had a greater understanding of the scientific concepts and issues that colleagues were trying to achieve. It also provided an opportunity for the TAFI staff to meet and talk to a range of International delegates. We provided a separate audio-visual room for downloading and previewing presentations that also included four computers linked to the internet. These computers were heavily used during the conference and possibly more could have been made available. Providing access to other office equipment is recommended (fax, phone, copier, printer, sticky tape, paper clips etc).

6.5 Conference Proceedings

Careful consideration needs to be given to the type of proceedings. Special issues of peer reviewed scientific journals are expensive. The costs for this conference (~A\$42,000) were double the costs of the previous conference proceedings (6th International Conference on Lobster Biology and Management). Other cheaper options are books (e.g. World Fisheries Congress or Proceedings of the World Congress on Aquatic Protected Areas, Cairns, Australia, 2002) or CDs. Although cheaper, these alternative options run the risk of attracting fewer submissions.

6.6 Media

This is an area that is generally poorly developed unless the host organisation has specialist media personnel. Although an additional expense, consideration of a specific media person for pre-, during and post-conference media should be considered. Media issues during the conference became problematic as there were several interviews most days but the conference organisers were busy elsewhere ensuring the smooth running of the day to day activities. The media used the morning, lunch and afternoon breaks to meet delegates and careful consideration needs to be given to topics of interest, people of interest and people who can perform for the media. Sorting this out during the conference required considerable time and planning beforehand is recommended.

6.7 Promotion

There are many opportunities for promotion/advertising that became apparent prior to, during and after the conference. The following are suggested opportunities:

- Flyers by both email and postage to delegates that attended a previous or similar conference; to organisations that would include potential participants (e.g. fisheries research and management agencies, National and International Universities, commercial agencies (commercial and recreational fishing industry or aquaculture associations).
- Electronic advertisement to appropriate list servers (e.g. Crust-L) and journals (Journal of Crustacean Biology has an 'upcoming conference' section)
- Advertisements in National and International newsletters: (ASFB, AMSA, Lobster Newsletter, Australian Maritime Digest, FRDC News).
- Short articles in newsletters and magazines such as State and Sector fishing newsletters and magazines (Fishing Today, Australian Southern Rock Lobster Industry News), FRDC R & D News, AFMA News etc.

7. Conference proceedings

The proceedings of the conference were published in two special issues of the New Zealand Journal of Marine and Freshwater Research (Volume 39 / Number 2 and 3) in July 2005. Production of the proceedings within 17 months of the conference is considered a very good turn around time. We chose to pay extra to have the Journal undertake the editing and review of the proceedings for two reasons.

Firstly, the journal would be satisfied that the quality of articles was to the standard of the journal. During discussions with various editors during the journal selection process, it was clear that journals had concern that special issues editor by the conference organisers often contain articles that may not normally have been published by the journal.

Secondly, external review of this nature elevated the status of the proceedings and attracted more papers of a higher standard.

8. Benefits and adoption

Benefits of the conference include:

- (a) Exposure of a greater number of Australian scientists to International rock lobster research outcomes and the ability to meet and discuss the latest developments in lobster research.
- (b) The opportunity for Managers and Industry to hear of research at the International level and compare the outcomes being achieved by Australian scientists. Managers and Industry should be in an improved position to appraise future research proposals.
- (c) Increased collaboration at both the National and International stage.
- (d) Increased awareness of Australian research through the increased number of publications in the proceedings.

While the adoption of the research presented is related to each specific researcher, as one of the delegates I have been contacted regarding tagging models by another National lobster scientist and Hallprint have been contacted by International scientists regarding the development of the combined PIT and T-bar tag. Both these contacts relate to the FRDC funded project “2003/051 Developing tagging models and validating assumptions for estimating key fishery assessment parameters in rock lobster fisheries”

9. Further development

The next lobster conference (8th International Conference on Lobster Biology and Management) will be held at Charlottetown, Prince Edward Island in Canada from 23rd to 28th September 2007. In addition to scientists and managers there is interest from industry to attend this conference and to hold meetings with Canadian and American lobster fishers.

10. Planned outcomes

- (a) A major outcome from the conference will be the application and incorporation of new research findings into future research projects underpinning the sustainability and environmental acceptance of Australia’s key lobster fisheries. Results of these projects will be of directly benefit to the Australian lobster industries and their managers.

It is still too early to determine how many projects have utilized research findings presented at the conference. Feedback from delegates (see appendix) suggest that their involvement was beneficial.

- (b) A major outcome of the conference will be the recognition of Australian scientists and managers as key rock lobster experts and that Australia's rock lobster fisheries are at the forefront of research and management internationally.

Professor Jiro Kittaka (Japan), often referred to as the “father” of lobster aquaculture stated that he believed that Australia was poised to become the center of excellence in lobster aquaculture. Similarly, Professor Mark Butler (USA), a leading International Lobster scientist, claimed that Australian scientists were now the leaders in lobster fisheries research.

Feedback from delegates (see appendix) support these statements.

11. Conclusions

The conference met all expectations with both the largest number of oral presentations and posters of any lobster conference held to-date. The number of Australian presentations and posters reflects participation by a large number of Australian senior and junior scientists. The conference provided a platform for demonstrating Australia's commitment to lobster research both in wild fisheries and aquaculture.

The proceedings have been published inside 18 months and in a journal that is above the median impact factor for fisheries science. Again Australian scientists are the major representative country in the proceedings.

12. Appendix 1: Intellectual Property

Not applicable

13. Appendix 2: Staff

The Conference Committee included:

Stewart Frusher (Chair)	TAFI Chair
Caleb Gardner	TAFI – Wild Fisheries
Arthur Ritar	TAFI – Aquaculture
Rod Pearn	DPIWE
Neil Stump	Industry

Conference Design was selected to manage the conference.

14. Feedback from delegates at the 7th International Conference on Lobster Biology and Management.

Once again I express my deep gratitude for giving an opportunity to be part of the World gathering on lobsters.

With regards,
Dr Radhakrishnan
Central Marine Fisheries Research Institute, Cochin, India

It was a good conference at Hobart and I enjoyed my stay and participation in the deliberations.

I am back to my lobsters and phyllosomas and hope to implement some of the ideas I gathered at Hobart in my future research.

Thank you

With best wishes
Dr M. Vijayakumaran
National Institute of Ocean Technology, Pallikaranai, Chennai, Tamil Nadu, India

Congratulations and thanks to you and your committee for such a successful conference. I can't think of a single shortcoming - ah, hang on, just one: NZers having to stand for Advance Australia Fair.

But only a small moan...

Very best wishes
John

John Booth
National Institute of Water and Atmospheric Research Ltd

Thank you for such a great meeting. Nice setting, well organized and interesting.

Best wishes
Lewis S.Incze
Senior Research Scientist
Bioscience Research Institute
University of Southern Maine, USA

I enjoyed your meeting very much. Many thanks to you and all the organising committee - it was superbly managed. Special thanks to all the people who organised and ran the Mount Wellington walk, and the fishers who supplied the crays for dinner!

Cheers
Paul
National Institute of Water and Atmospheric Research Ltd

*Great meeting. I enjoyed Hobart and the central highland lakes - caught a few trout after the conference!
Thanks for all the hard work that made the 7th ICWL a success.
WF Herrnkind*

Dept. of Biological Sciences
Florida State University, USA

Just wanted to say thanks again for putting on a great conference. What a beautiful region, I wish I had more time to explore it.

Donald C Behringer Jr., Ph.D.
Postdoctoral Associate
Department of Biological Sciences
Old Dominion University, USA

Thank you for an outstanding meeting. You guys did a tremendous job organizing it and the talks were interesting. We also had a great time exploring Tasmania after the meeting; new creatures and plants at every turn. Thanks for the opportunity.

Richard A. Wahle, Ph.D.
Senior Research Scientist
Bigelow Laboratory for Ocean Sciences
West Boothbay Harbor, Maine 04575
USA

I want to congratulate you and the organizing committee for putting together such an excellent meeting. The people from Prince Edward Island will have to work so hard to reach your high standards. I also want to thank all of you, for making possible my participation, through out the assistance grant. As you just said, it was a great forum, and I am proud and thankful for having the chance to be there.

Best regards,
Juan M. Posada
Dept. Biología de Organismos
Univ. Simón Bolívar
Caracas, Venezuela

Thank you very much for the arrangements made for my participation in the 7th International Conference on Lobster Biology and Management.

Yours sincerely
G.INDRA JASMINE
Fisheries College and Research Institution,
Tamil Nadu Veterinary and Animal Science University
India

Now that I have recovered (mostly) from the jet-lag, I write to say "Congratulations!" on a very successful Seventh International Lobster Conference. And allow me to add a personal "Thank you!" for all of the time and hard work that I know you and the other organizers spent to make sure it all went smoothly.

I would also add that I very much appreciated Caleb Gardner's time and effort to plan and execute the post-conference crayfish tour. As much as I enjoyed Hobart, I especially appreciated the opportunity to see the Tasmanian countryside, and the northern and eastern coasts, not to mention those giant crayfish.

Many thanks for a fine conference and your hospitality.
Jan Robert Factor, Ph.D.
Professor of Biology
Division of Natural Sciences
Purchase College
State University of New York

Many thanks for organising such a stimulating and enjoyable conference. Having missed Key West it was great to catch up again with old and new friends and colleagues.

Dr Julian Addison
CEFAS,
Lowestoft, UK.

Firstly CONGRATULATIONS for your efforts with the conference.

It was very well organised and great to have the "Management section" for those of us that aren't scientists but interested in the fishery.

It was a great opportunity to hear local and international speakers and meet with world wide fishers, researchers and managers and come away feeling lucky to be part of the Tasmanian Rock Lobster fishery.

Conversations I had with other attendees were all very positive about our Tasmanian fishery from the work being done here and the papers presented. It shows what a high standard our researchers and projects are at by international comparisons.

I hope to be able to attend the 8th conference.

Dawn

Dawn E Jordan
RJ & DE Jordan
Tasmanian Rock Lobster and Giant Crab Fishers
Currie, King Island. Tasmania.

The following is copied from the May issue of *The Ecdysiast - Newsletter of The Crustacean Society*.

The 7th Symposium on Lobster Biology and Management in Hobart, Tasmania, was a resounding success. There were over 150 participants giving more than 60 papers and 50 abstracts. Sessions included topics on post-harvest health, ecology, management, stock assessment, disease, physiology and aquaculture. Several commercially important lobsters were discussed: *Homarus*, *Panulirus*, *Jasus*, *Thenus* and *Nephrops*. Twenty nationalities were represented including scientist from

Mexico, Venezuela, the USA, Canada, the UK, Spain, Portugal, Israel, Kenya, India, Papua-New Guinea, Australia, New Zealand, Japan, Namibia, South Africa, Iran, Vietnam, Norway and Ireland. Kudos to Stewart Frusher and Caleb Gardner for their hosting this excellent event in the vibrant city of Hobart. To a standing ovation, Prof. Jiro Kittaka received a well-deserved lifetime achievement award for work on larval development and culture. The award was given at a marvelous banquet that included lobster (*Jasus edwardsii*), cultured Atlantic salmon, and excellent Aussie wines. The Australian humorist at the banquet left many of us wondering whether Australians really do speak English! (no it's "Strine", mate!) With tongue firmly in cheek, it was pointed out that the number of speakers presenting papers on the Caribbean spiny lobster at this meeting was indeed disproportionate to the value of the fishery. Having said this, *Panulirus argus* and *Jasus edwardsii* are not the largest lobster fisheries in the world, even when combined! Interestingly, several American colleagues and I have only met in Australia. This is strange given that we live only 400 miles or so apart! I would have liked to have seen more of my colleagues, Hobart, and Tasmania, but I was cloistered during much of the meeting finishing a grant deadline. Nevertheless, I enjoyed the Salamanca district, the fresh seafood, and the marvelous water views of the Hobart coastline. Mark your calendars! The 8th International Conference and Workshop on Lobster Biology and Management will be co-hosted by the Prince Edward Island Department of Agriculture, Fisheries, Aquaculture & Forestry and the Atlantic Veterinary College, Lobster Science Centre. It will be held in Charlottetown, Prince Edward Island, in September 2007.

Jeff Shields, TCS President-Elect



Dr Stewart Frusher
Organiser
7th International Conference and Workshop on Lobster Biology and Management
Hobart

24 March 2004

Dear Dr Frusher,

Re: Beneficiary comment on the 7th ICWLBM
From my perspective as an active researcher working on aspects of lobster reproductive ecology as impacted by human exploitation I found the conference to be a perfect forum and of extreme benefit for myself, my team and my students.

The strategic benefits of attending this conference were high. It was an ideal opportunity to present the results of our research over the last 4 years on spiny lobster reproduction and enhancement. This specialist conference is held only every 3-5 years and was thus judged by NIWA as the forum to get the necessary feedback and exposure for this research. Lobsters are and will continue to be a key species in a variety of NIWA research projects and five NIWA staff working in a variety of fields attended this conference to present their work, hear and see other presentations and interact with their colleagues. This is the first time since 1977 that the Conference has been held in Australia and it attracted leading researchers and fisheries managers from around the southern hemispheres working on *Jasus* species as well as those working on tropical and northern temperate species. The opportunity to bring back new research ideas, opportunities and collaboration was thus high. NIWA has previously obtained funds from the Australian Fisheries Research Development Council for lobster research activities jointly with various Australian colleagues. This conference was an opportunity to showcase the outcome of this research.

For my students this conference presented the best opportunity to forge links with established lobster ecologists from around the world.

International science relationships work largely through personal contact and interaction. The warm and friendly atmosphere that Dr Frusher and his colleagues created during this conference was very favourable for this interaction to take place.

Sincerely,

Dr Alison MacDiarmid
Principal Scientist
Benthic Fisheries & Ecology

NIWA
Greta Point
Wellington

7th International Conference and Workshop on Lobster Biology and Management

Hobart, Tasmania (slightly south of mainland Australia)

8 – 13 February 2004

A delegates overview from a New Zealand Industry perspective

Daryl Sykes (NZ Rock Lobster Industry Council – NZ RLIC)

This conference was the third at which the NZ rock lobster industry has participated. The first was in Queenstown, the second in Key West, Florida. Hobart retained the two central themes of biology and management established at the Queenstown conference.

Full marks go to the Tasmanian organising committee for their excellent choice of venue and facilities for conference delegates. Fine, warm (relatively speaking from the point of view of the Florida delegates) weather for the duration was an added bonus. The event hosts were unfailingly cheerful, helpful and enthusiastic and well deserved the acclamation given them at the closing session.

The main event programme promised an interesting mix of biology, behaviour, aquaculture and management topics, but unfortunately there were more than just a few disappointing presentations given when the business of conference commenced. There were some definite “keynote” addresses, being new, previously unpublished work of some significant merit and consequence. However a few too many presentations were reprises of previous reports, either published, or presented elsewhere, or were delivered by persons on behalf of the principal authors. In which case their relative unfamiliarity with the details of the topic distracted the audience from the content.

Of particular interest to the industry delegates were a number of marine reserves-related presentations. The worst of those promoted the myths of “spillover” and fishery enhancements. The very best of them highlighted the myths and challenged populist thinking about the alleged fisheries management and economic benefits of closing areas to fishing.

Between the two extremes there were some interesting but relatively lightweight attempts to develop methods for calculating opportunity loss and compensation benchmarks for displaced fishing effort. The intentions were good, and Australia in particular has a far more robust assessment of adverse impacts than we have in NZ, but the assumptions and conclusions of several papers were sometimes very weak. Some industry delegates believed this to be a consequence of researchers taking stock monitoring data at face value, and not taking sufficient time to familiarise themselves with the business of rock lobster fishing as it done on the water.

The Hobart event confirmed to the NZ RLIC that some (but definitely not all) of the most interesting work from a management perspective is being done here in New Zealand. We believe that the contestable research programme operating in New Zealand serves a useful purpose in that our research projects are generally better focused on management needs rather than research wants. Much of what was presented in the “management” sessions in Hobart was “nice to know” but had little application in the real world.

The most notable exceptions were some projects being run in Tasmania and two interesting amateur catch survey projects from the USA. The secondary category of highlight papers related to stock monitoring activities in Canadian and East Coast USA lobster fisheries and in South Africa. The value of industry generated data was greatly emphasised – although the South African delegate was less inclined towards it - and there was a good focus on electronic data collection and reporting back to fishermen.

Amongst the more topical (for the NZ rock lobster industry) presentations:

- the implications of MPAs for rock lobster populations in the context of ITQ management;
- quantifying levels of lobster net catch loss in South Australian MPAs for costing buy-back of displaced effort;
- the effect of lobster fishing on the population dynamics of sea urchins on the east coast of Tasmania;
- ecological impacts of the fishery for western rock lobsters;
- eco-system based management of the fishery for the western rock lobster with special reference to interaction with the Australian sea lion;
- the behaviour of lobsters to traps;

- environmental factors affecting the daily catch rate of western rock lobsters;
- marine protected areas in Australia – towards a consolidated industry position;
- effects of tagging on the somatic growth rate of South African rock lobster;
- a fisheries independent monitoring survey for the South African West Coast rock lobster;
- best practice in the Australian rock lobster fishery (a video);
- management and assessment of the Tasmanian recreational rock lobster fishery-providing for sustainable development;
- a mail survey programme for better understanding the dynamics of the American lobster fishery in Maine;
- Florida’s recreational lobster fishery; decade-long trends in landings and effort and their management implications.

Each of those presentations provided guidance and advice to the NZ delegates in terms of future research planning and stock monitoring work. The effect of tagging on growth was a very interesting paper – enough to cause the NZ RLIC to reconsider the timing of tag and release sequences to ensure accurate growth data is used in future stock assessments.

The research on amateur fishing in Tasmania, Florida and Maine provides a platform for a possible joint venture between NZ RLIC and a preferred research provider to develop and submit a tender for compiling credible estimates of amateur removals from NZ lobster fisheries. Work done in Australia on the environmental effects of fishing for rock lobsters will be extremely useful to NZ in the near future.

In what I will call the “aquaculture” section of the programme there were a number of very interesting presentations. The ones that caught my eye and my ear were those related to harvest and post-harvest technology and product quality issues.

Several years ago the NZ RLIC investigated the prospect of developing “appellations” for NZ rock lobster based on flesh quality, chemical composition etc. The Australians are onto that concept in a big way and FRDC funding is being used to define and standardise flesh quality attributes of southern rock lobsters.

Visual means of identifying moult stages in lobsters was also a useful research topic related to quality standards. On a similar topic was work on determining shell hardness.

Amongst the static displays at the conference venue there was tagging technology from Hallprint, some electronic data collection technology that was close to matching the versatility of the NZ RLIC *ERNIE* system, and underwater infrared video surveillance kit now routinely used in Australia and the USA to study behaviour and species interactions. The Poster displays were informative, very professional, and some dealt with topics that in my view more properly belonged in the main programme – perhaps next time.

I am in no doubt that when reflecting on the Hobart event, delegates from other countries would have their own “keynote” presentations in mind, relevant to their own circumstances. All delegates could have derived equally as much guidance, encouragement and inspiration from the event programme.

Looking Ahead:

The Hobart programme rightly recognised the time, cost and commitment required of delegates travelling to Tasmania from around the world by providing the maximum number of presentation opportunities in two concurrent “streams”. Myself and others have already made informal suggestions to the conference organising committee as to changing the format and content for the next conference.

These international gatherings are important to researchers, managers and fishery stakeholders and ideally should provide an opportunity for debate and interrogation of methods, techniques, policies and perhaps even ideologies. With the greatest of respect to aspiring published authors and their mentors, an event of this importance is not a place to “blood” inexperienced presenters. The International forum should focus on the best, the most controversial, and/or the most innovative research and management approaches, and should be structured in such a way as to ensure that authors and presenters are accountable for their methodology and results.

The instigators of these International conferences made a bold call when they invited an active rock lobster industry presence and participation to the Queenstown event. The NZ industry was quick to seize the opportunity and has continued to support and participate through the years. But where was the local rock lobster industry in Key West, and more recently in Hobart? It is incumbent upon commercial stakeholders to promote their perspective of rock lobster fisheries and there is possibly no more prestigious forum in which to do that than the International Conferences and Workshops.

On a possibly more sensitive topic, future event organisers need to decide on how best to deal with “English as a second language” presentations. There must be a better way to arrange and present work than to have the audience bemused and distracted by not properly understanding what is being said. To include what are in effect “foreign language” presentations does not reinforce the international aspect of the event, it demeans the work done by the researchers, and precludes the full appreciation of that work by conference delegates. I would never suggest that non-English speaking presenters be excluded, but I do encourage more thoughtful consideration by principal researchers and authors as to how best to communicate their findings to a predominately English-language audience.

The next International Conference and Workshop will be held on Prince Edward Island, Canada in September 2007, and if the humour and oratory of the Canadian delegate in Hobart is even a hint of what awaits, and if the 2007 organising committee follows the example and heeds the advice of the Tasmanians, the 8th International event will be a resounding success.

Daryl Sykes (NZ Rock Lobster Industry Council – NZ RLIC)

March 2004



Department of Fisheries
Government of Western Australia



Dr Stewart Frusher
Chair, Conference Organising Committee
7th International Conference and Workshop
on Lobster Biology and Management
Tasmanian Fisheries and Aquaculture Institute
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Dear Stewart

I write to pass on my compliments to you and your conference organising committee for your excellent job in hosting the 7th International Conference and Workshop on Lobster Biology and Management.

This Department sent a big contingent to the conference. All of us were impressed with the high standard of presentations and the many opportunities for interaction that were afforded by the programmed breaks, poster sessions and social events.

The value of this workshop series was again highlighted by its broad coverage of both traditional fisheries fields and new issues facing rock lobster fishers and managers. The international papers focusing on ecosystem impacts, resource sharing and marine protected areas were particularly useful from an Australian research planning perspective.

As a major sponsor, we were very pleased with the arrangements for displaying our posters and the opportunity to promote the WA industry internationally.

Congratulations to you and your organising committee.

Yours sincerely

Dr J W Penn
DIRECTOR – FISHERIES RESEARCH

25 March 2004

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