

10th International
Conference and Workshop
on Lobster Biology and Management



PROGRAM AND ABSTRACTS
Cancún, Q.R., México

PROGRAM

Sunday, May 18, 2014

4:00-6:00 pm	Registration
7:00-9:00 pm	Meet & Greet

Monday, May 19, 2014

8:00am-4:00pm	Registration	
8.45am	Announcements (posters can start being put up)	
9:00-9:30am	Official opening and welcome	
9:40-10:40am	Keynote: Lobsters in a changing climate. Bruce F. Phillips , M. Pérez-Ramírez	
10:40-11:00am	Health Break	
	Stream 1	Stream 2
	Climate Change Chair: Nick Caputi	Aquaculture, Nutrition and Population Enhancement Chairs: Andrew Jeffs, Carly Daniels & Greg Smith
11:00-11:20am	Factors affecting the low puerulus settlement in the western rock lobster fishery of Western Australia.- S. de Lestang, Nick Caputi , M. Feng, A. Denham, J. Penn, D. Slawinski, A. Pearce, E. Weller, J. How	Suspension feeding by larvae of American lobsters (<i>Homarus americanus</i>).- S. K. Vigue, Jan Robert Factor
11:20-11:40am	American lobster nurseries of southern New England recede in the face of climate change.- R. A. Wahle, L. Delinger, S. Olszewski, Phoebe Jekielek , C. Bergeron	New developments in lobster resource enhancement in Atlantic Canada through stage IV larvae release.- R. Haché, Dounia Daoud , Y. Hébert, A. Dumas
11:40-12:00pm	Is settlement and early survival of southern rock lobster affected by climate change-driven declines in kelp forests?- Ivan A. Hinojosa , B. Green, A. Jeffs, C. Gardner	Development of formulated feeds for intensive farming of European lobster <i>Homarus gammarus</i> .- Ingrid Lupatsch
12:00-12:20 pm	Shift from bottom-up to top-down control of the algal community due to climate change: impacts on the Japanese spiny lobster in southwestern Japan.- Taku Yoshimura , K. Yatsuya, T. Taneda, S. Kiyomoto, G. Yoshida	An overview of the American lobster (<i>Homarus americanus</i>) stock enhancement program in southern Gaspé, QC, Canada.- Jean Côté , O. Cloutier
12:20-12:40pm	Thermal tolerance of the nektonic puerulus stage of spiny lobsters and implications of ocean warming.- Quinn P. Fitzgibbon , N. Ruff, S. R. Tracey, S. C. Battaglione	Stocking density of European lobster (<i>Homarus gammarus</i>), implications for restocking and sea ranching.- A-L. Agnalt, Ellen Sofie Grefsrud , E. Farestveit, K. E. Jørstad
12:40-1:00pm	European lobster (<i>Homarus gammarus</i>) develop deformities when exposed to ocean acidification: larvae and juveniles.- Ann-Lisbeth Agnalt , E. S. Grefsrud, E. Farestveit, M. Larsen, F. Keulder	Sea based container culture: potential for use in rearing <i>Homarus gammarus</i> in South West England.- Carly L. Daniels
1:00-2:00pm	Lunch	
2:00-2:20pm	The future of <i>Nephrops</i> : the effect of climate change drivers on early development in the Norway lobster.- Hannah L. Wood , H. K. Styf, S. P. Eriksson	Culturing the European spiny lobster, <i>Palinurus elephas</i> .- David J. Fletcher , I. T. Fletcher
2:20-2:40pm	Combinational effects of climate-derived ocean acidification, hypoxia and manganese on food search behavior and CO ₂ avoidance in the economically and ecologically important marine crustacean <i>Nephrops norvegicus</i> .- Anna-Sara Krång , J. Mattsson, F. Jutfelt	Improving feed reception and larval survival through use of scyphozoan medusae as feed in scyllarid larviculture.- Joe K. Kizhakudan , V. Jayasankar, P. Vijayagopal, S. Krishnamoorthi, B. Jasper
2:40-3:00pm	Revisiting the <u>Lobster Gangs of Maine</u> amid ecosystem and climate change.- Carla Guenther	Can larval culture vessel surfaces influence the diversity of bacterial biofilms in spiny lobster culture?- Greg G. Smith , A. J. Poole, P. King, R. de Nys, Q. Fitzgibbon, S. Powell, S. Battaglione

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3:00-3:20pm	Temporal variability in population parameters of the Caribbean spiny lobster (<i>Panulirus argus</i>) in Cuba.– <u>María Estela de León</u> , R. Puga, R. Piñeiro, O. Morales, R. Alzugaray, L. S. Cobas	Impact of technology transfer on development of lobster farming in Indonesia using Vietnamese practices.– <u>Clive M. Jones</u> , B. Priyambodo
	Behavioral Ecology Chair: Michael J. Childress	
3:20-3:40pm	Seasonal movements of American lobsters in the Great Bay Estuary, NH, USA.– <u>Thomas G. Langley</u> , J. S. Goldstein, W. H. Watson III	The effect of trap type and depth on catch rate of puerulus collectors in the spiny lobster aquaculture industry of Indonesia.– <u>Bayu Priyambodo</u> , J. Sammut, C. Jones
3:40-4:00pm	Health Break	
4:00-4:20pm	Are juvenile Caribbean spiny lobsters becoming less social?– <u>Michael J. Childress</u> , K. A. Heldt, S. D. Miller	Potential environmental impacts from sea-cage aquaculture of tropical spiny lobster (<i>Panulirus ornatus</i>).– <u>Soxi Lee</u> , N. D. Hartstein, A. Jeffs
4:20-4:40pm	Aggressive behavior of spotted spiny lobsters (<i>Panulirus guttatus</i>) in different social contexts.– <u>Patricia Briones-Fourzán</u> , R. Domínguez-Gallegos, E. Lozano-Álvarez	Rearing, ongrowing and harvesting of Caribbean spiny lobster (<i>Panulirus argus</i>) in a marine farm in Cuba.– <u>Gerardo Suárez-Álvarez</u>
4:40-5:00pm	Pulse magnetization indicates Magnetite-based magnetoreceptors in the Caribbean spiny lobster.– <u>Dave A. Ernst</u> , K. Gentry, K. J. Lohmann	The New Zealand scampi (<i>Metanephrops challengeri</i>): A new aquaculture challenge.– <u>Kevin Heasman</u> , S. Ogilvie, G. Paine, R. Paine, S. Connor, G. Connor, D. Taylor, C. Batstone, H. Mussely, A. Jeffs
5:00-5:20pm	The in situ swimming and orientation behavior of spiny lobster (<i>Panulirus argus</i>) postlarvae.– <u>Andrew S. Kough</u> , C. B. Paris, E. Staaterman	

Tuesday, May 20, 2014

8:00am-4:00pm	Registration	
8:15am	Announcements	
8:20-9:20am	Keynote: The American lobster: Poster child of a changing ecosystem.– Richard A. Wahle	
	Stream 1	Stream 2
	Diseases and Parasites <i>Chairs: Don Behringer & Grant Stentiford</i>	Fisheries and Fisheries Technology <i>Chairs: Tom Matthews & Win Watson</i>
9:20-9:40am	The curious case of PaV1 in adult Caribbean spiny lobsters.– Donald C. Behringer , M. J. Butler IV, J. Moss, J. D. Shields	New approaches to fishing for Scampi (<i>Metanephrops challengeri</i>) in New Zealand.– Shaun Ogilvie , G. Paine, R. Paine, S. Connor, G. Connor, D. Taylor, C. Batstone, H. Mussely, K. Heasman, A. Jeffs
9:40-10:00am	A scent of death? Caribbean spiny lobsters equally avoid lethally injured and clinically PaV1-infected conspecifics.– Rebeca Candia-Zulbarán , P. Briones-Fourzán, E. Lozano-Álvarez	The development and deployment of GIS based, Electronic Logbook (eLog) in the South African south coast rock lobster fishery (<i>Palinurus gilchristi</i>).– Amos Barkai , K. Flanagan
10:00-10:20am	Detection and prevalence of <i>Panulirus argus</i> Virus 1 (PaV1) in tails of Caribbean spiny lobsters from two fishing cooperatives in Yucatan, Mexico.– Ruth Pérez-Campos , J. A. Pérez-Vega, N. Kantún-Moreno, S. Salas-Marquez, C. Pascual-Jiménez, R. Rodríguez-Canul	Long-term spatial and temporal variability in catches of common spiny lobster <i>Palinurus elephas</i> (Fabricius, 1787) in Corsica (NW Mediterranean): fisheries trends, biological trends or both?– Anthony Pere , A. Astrou, M. Patrissi, L. Michel, C. Pelaprat
10:20-10:40am	Does the importation of live American lobster (<i>Homarus americanus</i>) pose a threat to native European (<i>H. gammarus</i>) populations? Shell disease susceptibility.– Charlotte E. Davies , M. M. A. Whitten, A. Kim, E. C. Wootton, T. G.G. Maffei, M. Tlusty, C. L. Vogan, A. F. Rowley	Health risk associated to the lobster fishery in coastal communities of Yucatan, Mexico.– Oswaldo Huchim-Lara , S. Salas, C. Walter, J. Fraga
10:40-11:00am	Health Break	
11:00-11:20am	Infestation by metacercariae of the trematode <i>Cymatocarpus solearis</i> in Caribbean spiny lobsters from Bahía de la Ascensión, Mexico.– Rubén Muñoz de Cote-Hernández , P. Briones-Fourzán, F. Negrete-Soto, C. Barradas-Ortiz, E. Lozano-Álvarez	Redesigning the lobster trap for efficiency: Development of a better escape vent for lobster, <i>Homarus americanus</i> .– Kathleen Castro , B. Somers, L. Dellinger
11:20-11:40am	Immune response to <i>Panulirus argus</i> Virus 1 (PaV1) in naturally and experimentally infected juveniles of <i>Panulirus argus</i> .– Cristina Pascual-Jiménez , R. Rodríguez-Canul, Patricia Briones-Fourzán, Enrique Lozano-Álvarez, J. P. Huchin-Mian, N. Herrera-Salvatierra, M. Mascaró- Miquelajáuregui	Ghost fishing lobster traps in the Florida Keys.– Casey B. Butler , Thomas R. Matthews
11:40-12:00pm	Differential susceptibility to <i>Panulirus argus</i> Virus 1 (PaV1) between experimentally infected juvenile and adult Caribbean spiny lobsters.– Juan Pablo Huchin-Mian , R. Rodríguez-Canul, E. Lozano-Álvarez, P. Briones-Fourzán, N. Herrera-Salvatierra, C. Pascual-Jiménez	Catch me if you can: Factors influencing the catch of American lobsters in ventless traps.– Win Watson , A. Clark, J. Goldstein, E. Morrissey, T. Langley
12:00-12:20pm	Nutritional condition and digestive activity of juvenile spiny lobsters, <i>Panulirus argus</i> , naturally infected with PaV1.– Nancy Herrera-Salvatierra , J. P. Huchin-Mian, R. Rodríguez-Canul, C. Pascual-Jiménez	Scottish lobster fisheries and environmental variability.– Héctor A. Lizárraga-Cubedo , I. Tuck, N. Bailey, G. J. Pierce, A. F. Zuur, D. Bova
12:20-12:40pm	Experimental infections with <i>Panulirus argus</i> Virus 1 (PaV1) from <i>Panulirus argus</i> lobsters in the white shrimp <i>Litopenaeus vannamei</i> could lead to a putative reservoir host for PaV1.– Rossanna Rodríguez-Canul , E. T. Ruz-Ruiz, Y. Cruz-Quintana, J. P. Huchin-Mian, J. A. Pérez-Vega, R. A. A. Pérez-Campos, S. Guillén-Hernández, C. Pascual-Jiménez	Cost-effective puerulus settlement monitoring in deep, remote, and exposed waters utilizing the commercial lobster fleet.– Graeme Ewing , S. Frusher

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		Marine Protected Areas <i>Chair: Raquel Goñi</i>
12:40-1:00pm	The relationship between environmental DNA and invertebrate disease: ground-truthing an emerging technology.- Grant D. Stentiford , K. S. Bateman, S. W. Feist, H. Hartikainen, B. Okamura, D. Bass	Performance evaluation of No Take Marine Reserves in the Florida Keys National Marine Sanctuary for spiny lobsters, <i>Panulirus argus</i> .- Kerry E. Maxwell , R. D. Bertelsen, J. H. Hunt
1:00-2:00pm	Lunch	
2:00-2:20pm	Can we help lobsters beat shell disease? - Kathleen Castro , M. Gomez-Chiarri, K. Carria	Population recovery in a newly protected area adjacent to a well-established marine reserve.- Raquel Goñi , S. Mallol, D. Díaz
2:20-2:40pm	Characteristics of recent increases of epizootic shell disease in the American lobster (<i>Homarus americanus</i>) for the inshore Gulf of Maine.- Kathleen Reardon , C. Wilson	Evaluating the use of an MPA as a management tool for the Juan Fernández rock lobster fishery.- Billy Ernst , J. Porobic, C. Parada
2:40-3:00pm	Geospatial analysis in the prevalence of PaV1 in the lobster fishery of the eastern coast of Yucatan, Mexico.- Oswaldo Huchim-Lara , R. Pérez-Campos, S. Salas, H. Hernández-Nuñez, M. Liceaga-Correa, R. Rodríguez-Canul	Fisheries effect on mating behavior and mate choice in wild European lobster (<i>Homarus gammarus</i>).- Tonje Knutsen Sørtdalen , H. Knutsen, E. M. Olsen, A. Vøllestad
		Habitat and Ecosystem Issues for Fisheries Management <i>Chairs: Lynda Bellchambers & Renae Hovey</i>
3:00-3:20pm	Prevalence and genetic diversity of <i>Panulirus argus</i> virus I throughout the Caribbean Sea.- J. Moss, Donald C. Behringer , J. D. Shields, M. J. Butler IV	Addressing habitat and ecosystem issues in fisheries management: a case study with western rock lobster (<i>Panulirus cygnus</i>).- Lynda Bellchambers , M. Pember, R. Hovey
3:20-3:40pm	Swimming with sickness: A theoretical model of disease dispersal.- Andrew S. Kough , C. B. Paris, M. J. Butler IV, D. C. Behringer	Socio-economic evaluation of a California lobster fishery in the context of ecosystem.- A. Chávez-Hidalgo, Ernesto A. Chávez , J. M. Borges-Souza
3:40-4:00pm	Health Break	
		Population and Community Ecology <i>Chair: Kari Lavalli</i>
4:00-4:20pm	Facilitating coexistence: Dietary partitioning between two sympatric spiny lobsters in a Caribbean coral reef system.- Iris Segura-García , P. Briones-Fourzán, S. de Lestang, E. Lozano-Álvarez	Spiny lobster fishing and maerl conservation: short-term losses and long-term benefits of modifying <i>Palinurus elephas</i> trammel net material.- Sandra Mallol , J. Mora, D. Díaz, R. Goñi
4:20-4:40pm	Patterns in demographics of American lobster (<i>Homarus americanus</i>) in coastal waters - Massachusetts Bay - USA.- Tracy L. Pugh , R. E. Glenn	Complex effects of casitas on spiny lobsters in the Florida Keys, FL (USA).- Benjamin C. Gutzler , M. J. Butler IV, D. C. Behringer Jr.
4:40-5:00pm	Higher correlation of <i>Palinurus elephas</i> settlement with regional versus global environmental forcing.- David Díaz , A. Muñoz, S. Mallol, R. Goñi	Does large scale harvesting of the spiny lobster, <i>Jasus edwardsii</i> , affect their subsequent recruitment into reefs? - Jan Hesse , A. Jeffs, J. Stanley
5:00-5:20pm	Patchiness in American lobster settlement at a hierarchy of spatial scales.- Gudjon Mar Sigurdsson , M. J. Tremblay, R. Rochette	Upscaling habitat data to understand the spatial arrangement of lobster habitat across its geographic range: the effect of spatial scale on the predictability of lobster habitat.- Renae K. Hovey , L. Bellchambers, M. Pember, K. van Niel
5:20-5:40pm	Investigating European lobster (<i>Homarus gammarus</i>) populations in Northumberland, UK, via acoustic telemetry (AT)- Movement & habitat utilisation.- Daniel J. Skerrett , C. Fitzsimmons, N. V. C. Polunin	An unfished area enhances a <i>Panulirus argus</i> fishery: Implications for management and conservation within a Biosphere Reserve in the Mexican Caribbean.- Kim Ley-Cooper , S. de Lestang, B. F. Phillips, E. Lozano-Álvarez
7:00-9:00pm	Poster Session (with light refreshments)	

Wednesday, May 21, 2014

8:00-10:00am	Registration	
8:15am	Announcements	
8:20-9:20am	Keynote: History of utilization of lobsters by humans.– <u>Ehud Spanier</u> , <i>Kari Lavalli</i>	
	Stream 1	Stream 2
	Lobsters in Antiquity <i>Chairs: Ehud Spanier, Kari Lavalli & Jason Goldstein</i>	Habitat and Ecosystem Issues for Fisheries Management (continues) <i>Chairs: Lynda Bellchambers & Renae Hovey</i>
9:20-9:40am	Aspects of the history of lobster utilization in the Central and Eastern Mediterranean and Red Sea.– <u>Ehud Spanier</u> , <i>M. L. Bianchini, J. S. Goldstein, R. D Kibler</i>	Delousing chemicals containing teflubenzuron will affect European lobster (<i>Homarus gammarus</i>) juveniles.– <u>Ann-Lisbeth Agnalt</u> , <i>E. S. Grefsrud, B. T. Lunestad, E. Farestveit, R. Hannisdal, B. Holmelid, T. Tjensvoll, O. B. Samuelsen</i>
9:40-10:00am	The European spiny lobster <i>Palinurus elephas</i> : A species for understanding the ancient history of Mediterranean fisheries.– <u>David Díaz</u> , <i>S. Mallol, R. Goñi</i>	Effects of pesticide-spiked sediment exposure on stage V juvenile lobster <i>Homarus americanus</i> .– <u>Dounia Daoud</u> , <i>P. Jackman, S. Greenwood, S. Reeb, M. Comeau, M. Mallet, K. Benhalima, B. Bruneau</i>
10:00-10:20am	History of utilization of lobsters by humans in Australia.– <u>Clive M. Jones</u> , <i>B. F. Phillips</i>	Settlement delay and growth of postlarval American lobsters on different seafloor substrates, and juvenile use of mud seafloor.– <u>Kristin Dinning</u> , <i>R. Rochette</i>
10:20-10:40am	Nga Koura o Aotearoa: The history of lobsters in New Zealand.– <u>Andrew Jeffs</u>	Does fishing for Western rock lobster impact benthic ecosystems?– <u>Matthew B. Pember</u> , <i>L. Bellchambers, R. K. Hovey, N. Konzewitsch, S. de Lestang</i>
10:40-11:00am	Health Break	
11:00-11:20am	The long and winding history of the fishery, management and culture of European lobster (<i>Homarus gammarus</i>) in Norway.– <u>Gro L. van der Meeren</u> , <i>E. Moland, A.-L. Agnalt, A. R. Kleiven, E. M. Olsen, E. S. Grefsrud</i>	Habitat characterization of juvenile lobsters <i>Panulirus argus</i> in central coast of Yucatan, Mexico.– <u>Gloria Verónica Ríos-Lara</u>
11:20-11:40am	Usage of lobsters in the Americas.– <u>Kari L. Lavalli</u>	Habitat complexity: A key factor in spatiotemporal fluctuation of abundance of spiny lobster <i>Panulirus gracilis</i> in Manabí, Ecuador.– <u>Juan Figueroa</u> , <i>R. Castillo, D. Mero, C. Erazo</i>
11:40-12:00pm	A historical overview of lobster use by pre- and post-Columbian cultures in the Caribbean and Mesoamerica.– <u>Jason S. Goldstein</u> , <i>D. C. Behringer, W. F. Keegan</i>	
12:00-12.30pm	Group Photography	
1:00-7:00pm	Mid-conference free afternoon special activity: Coral reef snorkeling and Lobster sunset meal	

Thursday, May 22, 2014

8:00am-4:00pm	Registration	
8:15am	Announcements	
8:20-9:20am	Keynote: Research for management of lobster fisheries: its history, recent developments and future challenges.- Jim Penn	
	Stream 1	Stream 2
	Population and Community Ecology (continues) Chair: Adolfo Gracia	Stock Assessment Chair: Nelson Ehrhardt
9:20-9:40am	An analysis of spiny lobster movement patterns: A comparison of two <i>Panulirus argus</i> populations residing in the lower Florida Keys, Florida, USA.- Rodney D. Bertelsen , T. R. Matthews	Growth of juvenile lobster, <i>Homarus americanus</i> , in a changing environment.- Marissa D. McMahan , D. F. Cowan, Y. Chen, J. H. Grabowski, G. D. Sherwood
9:40-10:00am	Interspecific shelter competition as a driver of juvenile spiny lobster abundance and distribution.- Elliot Hart , D. C. Behringer	A new forecasting model for the American lobster fishery using the American Lobster Settlement Index.- Noah G. Oppenheim , R. A. Wahle, D. C. Brady, P. Lawton
10:00-10:20am	Natural ecological traps in Caribbean spiny lobster nurseries.- Mark Butler , D. Behringer	Has exploitation caused a downward shift in size-at-maturity of female American lobster <i>Homarus americanus</i> in Atlantic Canada?- Marthe Larsen Haarr , R. Rochette
	Reproduction, Development & Physiology Chair: Jason Goldstein	
10:20-10:40am	American lobster mating system: Limited mating opportunity and possible male preference for larger females.- Julien Gaudette , J. Tremblay, V. Burdett-Coutts	Scampi (<i>Metanephrops challengeri</i>) emergence patterns and catchability.- Ian Tuck , D. Parsons, B. Hartill
10:40-11:00am	Health Break	
11:00-11:20am	Overwhelming odds? Male mating success when dwarfed or outnumbered by female partners.- Tracy L. Pugh , W. Watson III	Assessment of maximum economic yield of the western rock lobster fishery of Western Australia under quota control.- Nick Caputi , S. de Lestang, C. Reid, A. Hesp, J. How, P. Stephenson
11:20-11:40am	Robbing the cradle: Evidence of mating in immature, pre-reproductive, female American lobsters.- Jason S. Goldstein , E. Morrissey, W.H. Watson III	Depletion analysis of spiny lobster (<i>Panulirus argus</i>) at Glover's Reef Marine Reserve, Belize, incorporating estimates of in-season recruitment.- Elizabeth A. Babcock , R. Coleman, J. Gibson, W. Harford
11:40-12:00 pm	Resistance to starvation of first-stage juveniles of the Caribbean spiny lobster, <i>Panulirus argus</i> .- Alí F. Espinosa-Magaña , P. Briones-Fourzán	On the recruitment dynamics of <i>Panulirus argus</i> .- Nelson Ehrhardt , J. A. Aragão, M. Pérez, M. Fitchett
12:00-12:20pm	The effects of cardio-ventilatory activity on the control of acute environmental thermal variations in immersed lobsters, <i>Homarus americanus</i> .- John J. Garland , R. F. Uglow	Numerical age-length key algorithm applicable to species when direct aging is not possible: The case of the Caribbean spiny lobster, <i>Panulirus argus</i> .- Mark Fitchett, Nelson Ehrhardt
12:20-12:40pm	Gastrolith development in European lobster <i>Homarus gammarus</i> juveniles during a moult cycle.- Ellen Sofie Grefsrud , A.-L. Agnalt, E. Farestveit	Environmental effects associated with cold fronts increase catch rates of <i>Panulirus argus</i> in a Mexican Caribbean Biosphere Reserve.- Kim Ley-Cooper , S. de Lestang, B. F. Phillips, E. Lozano-Álvarez, P. Briones-Fourzán, R. Fotedar
12:40-1:00pm	The association behavior of phyllosomas with jellyfish.- Kaori Wakabayashi , Y. Tanaka	Local dynamics of spiny lobster <i>Panulirus argus</i> resource under contrasting exploitation patterns in two fishing banks of the Mexican Caribbean.- Eloy Sosa-Cordero , C. Alvarez, J. C. Seijo, A. Ramírez-González
1:00-2:00pm	Lunch	

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	Connectivity and Larval Studies <i>Chair: Mark Butler</i>	
2:00-2:20pm	Settlement behavior of American lobster (<i>Homarus americanus</i>) postlarvae: effect of stock origin and incubation temperature.- Léo Barret , G. Miron, P. Ouellet, R. Tremblay	Estimating survival from long-term tagging data sets – how does time and duration of study influence survival estimates?- Ziya Kordjazi , S. Frusher, C. Buxton, C. Gardner
2:20-2:40pm	The effect of sedimentation on the settlement behavior of the American lobster (<i>Homarus americanus</i>).- Benoît Bruneau , G. Miron, D. Daoud, M. Mallet	Handle with care: an analysis of the effects of appendage damage on the growth and productivity of the southern rock lobster (<i>Jasus edwardsii</i>).- Timothy J. Emery , K. Hartmann, B. S. Green, C. Gardner, J. Tisdell
2:40-3:00pm	The effect of temperature, light and flow condition on the swimming ability of American lobster (<i>Homarus americanus</i>) larvae.- Ryan R. E. Stanley , P. V. R. Snelgrove, E. J. Pedersen	Population dynamics of the Baja California spiny lobster (<i>Panulirus interruptus</i>) and biological reference points of a sustainable and well-managed fishery.- Armando Vega-Velázquez , A. Vega-Bolaños, G. A. Jiménez-Llano
		Management <i>Chair: Jim Penn</i>
3:00-3:20pm	First estimates of potential large-scale spatial connectivity of American lobster fisheries in eastern North America via larval drift.- Brady K. Quinn , J. Chassé, R. Rochette	Comparing MSC certification process and obtained benefits for lobster fisheries.- Mónica Pérez-Ramírez , B. F. Phillips
3:20-3:40pm	Connectivity patterns in six lobster species at remote islands, seamounts and shelf habitats in the SW Indian Ocean and South Atlantic.- Johan C. Groeneveld , C. A. Matthee, S. von der Heyden, A. Macdonald, L. Zacharias	Microsatellite DNA profiling: a viable tool for the conservation and long-term sustainability of European lobsters (<i>Homarus gammarus</i>) stocks.- Paulo A. Prodöhl , D. Bailie
3:40-4:00pm	Health Break	
4:00-4:20pm	Hot n' hungry lobster larvae: Can a warming ocean explain a decline in spiny lobster recruitment?- Andrew Jeffs , M. Wang, R. O'Rorke, A. Waite, L. Beckley, P. Thompson	Fishing for revenue: how leasing quota can be hazardous to your health.- Timothy J. Emery , K. Hartmann, B. S. Green, C. Gardner, J. Tisdell
4:20-4:40pm	Caribbean spiny lobster larval connectivity: the "Holy Grail" for management of an iconic species.- Mark Butler , A. Kough, C. Paris	The use of management procedures in New Zealand rock lobster fisheries.- Kevin Sullivan
4:40-5:00pm		The pathway from research on lobster translocation into an industry-funded commercial enterprise.- Caleb Gardner , B. Green, K. Hartmann
5:00-5:20pm		Spatial management of a rock lobster resource under a quota system: biological, fishery and economic considerations.- Adrian Linnane , R. McGarvey
7:00-10:00pm	Conference dinner	

Friday, May 23, 2014

8:00-10:00am	Registration. All posters to be removed before 11:00am	
8:15am	Announcements	
8:20-9:20am	Keynote: Individual fishing grounds in the community co-managed spiny lobster fishery of Punta Allen, México: Lessons learned.- <u>Juan C. Seijo</u>	
	Stream 1	Stream 2
	Genetics <i>Chair: Johan Groeneveld</i>	Management (continues) <i>Chair: Jim Penn</i>
9:20-9:40am	Evidence for population structure of the southern rock lobster, <i>Jasus edwardsii</i> , around southern Australia.- <u>Cecilia Villacorta-Rath</u> , J. Strugnell, B. Green, K. Miller	Pressure for co-management and certification of Brazil lobster (<i>Panulirus argus</i>) fishery - Fisheries Improvement Program FIP.- <u>René Schärer</u>
9:40-10:00am	Genomics as a powerful tool in the management of the American lobster fishery.- <u>Laura Benestan</u> , R. Rochette, L. Bernatchez	The Caribbean spiny lobster (<i>Panulirus argus</i>) fishery management system in Cuba.- <u>Rafael Puga</u> , R. Alzugaray, M. E. de León, R. Piñeiro, O. Morales, L. S. Cobas
10:00-10:20am	Using genetic markers to investigate population ecology for lobster stock enhancement.- <u>Charlie D. Ellis</u> , A. Teacher, D. J. Hodgson	Effects of changing the commercial strategy of lobster capture and sales at Banco Chinchorro, Mexico.- <u>Ernesto A. Chávez</u> , K. Ley-Cooper, J. M. Borges-Souza
10:20-10:40am	The presence and role of Cryptochrome in the CNS of the American lobster.- <u>Win Watson</u> , M. Parks, C. White, J. Ramsdell, K. Chesmore, C. Chabot	The Bahamian spiny lobster fishery: Current status and the ongoing journey.- <u>Lester Gittens</u>
10:40-11:00am	<i>Homarus</i> hybrids detected in Norway - First evidence for interbreeding between introduced <i>Homarus americanus</i> and the local species, <i>Homarus gammarus</i> .- <u>Knut E. Jørstad</u> , A.-L. Agnalt, E. Farestveit, D. Bailie, P.A. Prodöhl	Solving the lobster diving paradox: Closing the Honduran dive fishery without collapsing the rural economy.- <u>Stephen Box</u>
11:00-11:20am	Health Break	
11:20-1:00pm	Awards for best student oral & poster presentations, Closing remarks, 11th ICWL Announcement.	

POSTER PRESENTATIONS

Climate Change

P1. Interactive effects of ocean warming and acidification on aspects of the developmental eco-physiology of the European lobster, *Homarus gammarus* (L.).- *D. Small, P. Calosi, J.I. Spicer, D. Boothroyd, S. Widdicombe*

Behavioral Ecology and Neurobiology

P2. Into a rhythm: Diel activity patterns and behavior in Mediterranean Slipper lobsters, *Scyllarides latus*.- *Jason S. Goldstein, Elizabeth A. Dubofsky, Ehud Spanier*

P3. Does aggression influence denning behavior of gregarious spiny lobsters in shelter limited habitats?- *Katherine A. Heldt, Michael J. Childress*

Diseases and Parasites

P4. Shell disease in American lobster: Identification of infection-promoting agents and projections for an expanding epizootic.- *Kisei Tanaka, Samuel Belknap, Jared Homola*

P5. A new conceptual model for Shell Disease in the American lobster (*Homarus americanus*).- *Anita Kim, Kathy Castro, Michael Tlusty*

P6. The polychaete *Histiobdella homarus* and other epibionts on the European lobster.- *Vidar Øresland*

P7. A theoretical basis for the occurrence of gynandromorphy and ovotestes in clawed lobsters.- *Grant D. Stentiford, A.T. Ford*

P8. Testing for the presence of PaV1 in oceanic phyllosomata and nektonic pueruli of *Panulirus argus*.- *Enrique Lozano-Álvarez, Patricia Briones-Fourzán, Juan P. Huchin-Mian, Iris Segura-García, Rossanna Rodríguez-Canul*

P9. Rickettsia-like organisms in Caribbean spiny lobsters: a putative concomitant infection associated to *Panulirus argus* Virus 1 (PaV1).- *Miriam Camelo-Marrufo, Juan P. Huchin-Mian, Juan A. Pérez-Vega, Rossanna Rodríguez-Canul*

P10. Prevalence and genomic variations of *Panulirus argus* Virus 1 (PaV1) in spiny lobsters from some Caribbean sites.- *Yanis Cruz-Quintana, Juan Pablo Huchin-Mian, Víctor M. Vidal-Martínez, Rossanna Rodríguez-Canul*

P11. Development of a qPCR assay for analyzing variability in viral load of *Panulirus argus* Virus 1 (PaV1) across lobster size scales.- *Abigail S. Clark, Donald C. Behringer, Thomas B. Waltzek*

Population and Community Ecology

P12. Evaluation of *Palinurus elephas* settlement at deep water by artificial lobster's collectors.- *David Díaz, Sandra Mallol, Anabel Muñoz, Javier Llorente, Raquel Goñi*

P13. Settlement of *Panulirus interruptus* postlarvae in Bahía Tortugas, B.C.S., Mexico and its relationship to the ocean environment.- *Jorge Carrillo-Laguna, Magdiel A. Bravo-Gómez, Sergio A. Guzmán del Prío*

P14. Stomach content of early juvenile spiny lobster *Panulirus interruptus* in Bahía Tortugas, BCS, Mexico.- *Jorge Carrillo-Laguna, Nallely Martínez-Sánchez, Sergio A. Guzmán del Prío*

P15. Variability in condition factor of recently settled pueruli and first-stage juveniles of the spiny lobster *Panulirus argus*.- *Rogelio Martínez-Calderón, Patricia Briones-Fourzán, Enrique Lozano-Álvarez*

P16. Population biology of the blue spiny lobster (*Panulirus inflatus*) from the Pacific south coast of Mexico.- *Rogelio Martínez-Calderón, Vicente Anislado-Tolentino, Samuel Ramos-Carrillo*

P17. Population biology of painted spiny lobster (*Panulirus echinatus*) in the São Pedro and São Paulo Archipelago, Brazil.- *Françoise D. de Lima, Lorena C. A. Andrade, Tatiana S. Leite, Jorge E. Lins Oliveira*

P18. Why do young Japanese spiny lobsters aggregate in sea anemone colonies?- *Taku Yoshimura, Tomeharu Todaka, Rumiko Kajiwara, Hisami Kuwahara, Yasushi Nakajima*

P19. Fauna caught in collectors for spiny lobster postlarvae (*Panulirus* spp.) in the southeastern Gulf of California.- *David Becerra-Arroyo, Raúl Pérez-González*

P20. A mark-recapture study with natural marks in juvenile Mexican lobsters, *Panulirus inflatus*.- *Jesús R. García-Paredes, Raúl Pérez-González, Guillermo Rodríguez-Domínguez*

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P21. Lobster in a Bottle – A novel technique for predation observation.– Jan Hesse, Andrew Jeffs

P22. Distribution and abundance of Family Nephropidae in the southern Gulf of Mexico.– Ana Stephanie del Ángel, Ana Rosa Vázquez-Bader, Adolfo Gracia

P23. Population traits of the flatback lobster *Stereomastis sculpta* in the Gulf of Mexico.– Mariana López Robles, Ana Rosa Vázquez Bader, Adolfo Gracia

P24. Lobsters from the deep: Nephropidae and Polychelidae from the continental slope of the Yucatan peninsula.– Patricia Briones-Fourzán, Enrique Lozano-Álvarez, Adolfo Gracia, Ana Rosa Vázquez-Bader

Lobsters in Antiquity

P25. History of utilization of Cape rock lobster *Jasus lalandii* by humans along the west coast of South Africa from pre-historic times to the present.– Johan Groeneveld

Reproduction, Development and Physiology

P26. Spermatophores produced by electro-stimulation of male lobsters (*Homarus americanus*) vary in size and content.– Tracy L. Pugh, Michel Comeau, Kadra Benhalima, Winsor H. Watson III

P27. Temperature accurately predicts fecundity in a regional lobster population.– Charlie D. Ellis, David J. Hodgson

P28. Mapping and navigating the reproductive anatomy in Mediterranean Slipper lobsters, *Scyllarides latus*.– Jason S. Goldstein, Marco L. Bianchini, Ehud Spanier

P29. The effect of size on spermatophore production and fertilization success in the Caribbean spiny lobster, *Panulirus argus*.– Mark J Butler IV, Alison MacDiarmid, Gaya Gnanalingam

P30. Mate choice, mate competition, and the contrasting reproductive biology of temperate and tropical spiny lobsters.– Mark Butler, Alison MacDiarmid, Rodney Bertelsen

P31. Use of jellyfish as the sole food for rearing phyllosomas of the scyllarid lobster *Ibacus ciliatus*.– Kaori Wakabayashi, Satomi Nagai, Yuji Tanaka

P32. Metabolic adjustments of *Panulirus argus* to thermal maxima limits.– Miriam Palestina-Martínez, Viridiana Gómez-Vázquez, Natali Casanova-Salazar, Cristina Pascual-Jiménez, Carlos Rosas-Vázquez

P33. Effects of temperature and salinity in dark and light condition on QO₂ of phyllosoma larvae of *Panulirus interruptus*.– Antonio Silva, Eugenio Díaz-Iglesias, Eitelberto Serrano-Flores, Armando Vega-Velázquez

Connectivity and Larval Studies

P34. Canadian Fishery Research Network, Project 1.3: Factors influencing recruitment and early survival of lobsters.– Gilles Miron, Michel Comeau, Dounia Daoud, Martin Mallet, Patrick Ouellet, Rémy Rochette, Bernard Sainte-Marie, Réjean Tremblay

P35. Light traps as a tool to sample pelagic larvae of American lobster (*Homarus americanus*).– Gudjon Mar Sigurdsson, Bryan Morse, Rémy Rochette

P36. Spatial variation and abundance of *Panulirus* spp. phyllosomas off the coast of Quintana Roo, Mexico.– Ashanti Canto-García, Eloy Sosa-Cordero, Jason S. Goldstein

P37. Effect of temperature on development rate of larvae from cold-water American lobster (*Homarus americanus*).– Brady K. Quinn, Rémy Rochette, Patrick Ouellet, Bernard Sainte-Marie

P38. Potential importance of interactions between mean and variability of water temperatures to realized development times of American lobster larvae.– Brady K. Quinn, Rémy Rochette

P39. Settlement of postlarvae of the spiny lobster *Panulirus inflatus* in the southeastern Gulf of California.– David Becerra-Arroyo, Raúl Pérez-González, Guillermo Rodríguez-Domínguez

P40. Hitching rides and stealing bites? Phyllosomas and large gelatinous zooplankton.– Richard O'Rorke, Shane Lavery, Miao Wang, Anya M. Waite, Lynnath E. Beckley, Peter A. Thompson, Andrew G. Jeffs

P41. Seasonal variation in size of nektonic pueruli of *Panulirus argus* and *P. guttatus*.– Patricia Briones-Fourzán, Enrique Lozano-Álvarez, Alí F. Espinosa-Magaña, Rogelio Martínez-Calderón

P42. Pueruli settlement of red spiny lobster (*Panulirus interruptus*) at Bahía Asunción, Baja California Sur, México, and its relationship with

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oceanographic factors.- **Armando Vega-Bolaños**, Armando Vega-Velázquez, Fernando López-Salas, Rigoberto Luna-Villalobos

P43. How puerulus behavior affects settlement success: interactions between settlement cues and oceanographic processes in southern rock lobster.- **Ivan A. Hinojosa**, Bridget Green, Caleb Gardner, Rafael León, Andrew Jeffs

Genetics

P44. Improving the stocking and sea-ranching practices for *Homarus gammarus* through the application of next-generation genetic-sequencing and transcriptomic analysis.- **Adam H. Bates**

P45. Genetic evidence from the spiny lobster fishery supports international cooperation among Central American marine protected areas.- N. K. Truelove, K. Ley-Cooper, J. Azueta, I. Majil, **Stephen Box**, S. Canty, S. Griffiths, R. Mansfield, A. Medina, A. Aguilar-Perera, D. Behringer Jr, M. J. Butler IV, R. F. Preziosi

P46. Genetic analyses reveal population structure among discrete size classes of Caribbean spiny lobster within two Biosphere Reserves in Mexico.- Nathan K. Truelove, **Kim Ley-Cooper**, Iris Segura-García, Patricia Briones-Fourzán, Enrique Lozano-Álvarez, Richard F. Preziosi, Bruce F. Phillips

Aquaculture, Nutrition and Population Enhancement

P47. Growth rate of juvenile Caribbean spiny lobster, *Panulirus argus*, fed a semi-humid diet.- **Pedro Gallardo-Espinosa**, Miriam Palestina-Martínez, Viridiana Gómez-Vázquez, Natali Casanova-Salazar, Carlos Rosas-Vázquez, Cristina Pascual-Jiménez

P48. Physiological condition of juvenile *Panulirus argus* fed diets containing by-catch from shrimp fisheries.- Aurora Ramírez-Estévez, Ariadna Sánchez-Arteaga, Pedro Gallardo-Espinosa, Francisco Aguilar-Salazar, Lucía Huchin-Cahum, **Cristina Pascual-Jiménez**

P49. On the occurrence of juvenile spiny lobsters, *Panulirus inflatus* and *P. gracilis*, in niester plastic baskets for oyster culture in the Ceuta lagoon complex, Sinaloa, Mexico.- **Luis Miguel Valadez-Manzano**, Martín Ignacio Borrego, Raúl Pérez-González, Jesús R. Galindo-Soto

Fisheries and Fisheries Technologies

P50. From nets to bottom traps: is exploitation of Norway lobsters a suitable option for Corsican common spiny lobster fishermen?- Michela Patrisi, Adèle Astrou, Corinne Pelaprat, Pierre Lejeune, Loïc Michel, **Anthony Pere**

P51. Common trends in two Scottish lobster populations.- **Héctor A. Lizárraga-Cubedo**, Ian Tuck, Nick Bailey, Graham J. Pierce, Alain F. Zuur

P52. Assessing the use of traps versus hook and diving method in the spiny lobster fishery of the Mexican Pacific.- **Víctor H. Martínez-Magaña**, Eduardo Ramos-Santiago, Ignacio Méndez-Gómez-Humarán

P53. The status of lobster fisheries in Rio Grande do Norte, Brazil.- Leocledna F. de Oliveira, Lorena C. A. Andrade, Françoise D. de Lima, Tatiana S. Leite, José A. de Vasconcelos, **Jorge E. Lins Oliveira**

P54. Diving accidents with lobster fishermen in the Northeast of Brazil.- Maria Isabel B. de Souza Mendes, Sérgio de Souza Mendes, **Jorge E. Lins Oliveira**, Hellyson R. Costa, Moaldecir Freire D. Junior

P55. Monitoring the catch of red spiny lobster *Panulirus interruptus* in Baja California, Mexico.- **José Julián Castro-González**, Rigoberto Sánchez Medina

P56. Remote, real-time monitoring of puerulus settlement using an underwater camera system.- Chris Sharman, **Graeme Ewing**, Stewart Frusher

Habitat and Ecosystem Issues for Fisheries Management

P57. Investigating lobsters and their habitat maps through the eyes of robots.- **Renaë K. Hovey**, Matt Pember, Lynda Bellchambers, Stefan Williams, Gary A. Kendrick

P58. An industry-based approach to regional-scale monitoring of benthic ecosystems.- **Matthew B. Pember**, Simon de Lestang, Dirk Slawinski

P59. Demersal assemblages of crustacean fishing grounds off the Portuguese South coast.- Aida Campos, Paulo Fonseca, Bárbara Teixeira, Manuel Afonso-Dias, **Margarida Castro**

P60. Effects of mosquito control pesticides on spiny lobster (*Panulirus argus*) pueruli.- **Thomas R. Matthews**, Gabrielle F. Renchen, Richard H. Pierce

P67 (Late submission). Size-at-age and body condition of juvenile American lobster (*Homarus americanus*) living on cobble and mud in a mixed-bottom embayment in the Bay of Fundy.- **Feng Tang**, Taryn Minch, Kristin Dinning, C. J. Martyniuk, Raouf Kilada, Rémy Rochette

Stock Assessment

P61. Spatial patterns in productivity of American lobster *Homarus americanus* in Atlantic Canada.– **Marthe Larsen Haarr**, Rémy Rochette, Michel Comeau, Bernard Sainte-Marie, John Tremblay

P62. Developing Southeast US spiny lobster stock assessment in a meta-population model.– **Nan Yao**, Yuying Zhang

P63. A stock evaluation model for future management of Caribbean spiny lobsters in Banco Chinchorro (México) with the use of casitas.– **Kim Ley-Cooper**, Enrique Lozano-Álvarez, Patricia Briones-Fourzán, Simon de Lestang, Bruce F. Phillips, Maria del Carmen García-Rivas

P64. Tag-induced mortality and tag retention in the European lobster *Palinurus elephas*.– Aline do Vale Barreto, **Margarida Castro**

P65. Estimation of age and growth of the spiny lobster *Panulirus inflatus*, using a matrix of transition and growth simulation.– **Karem Francely Castro-Gutiérrez**, Enrique Morales-Bojórquez, Raúl Pérez-González

Management

P66. Passive management vs Active management: the lobster fishery in Mexico.– **Enrique Morales-Bojórquez**