Oral Session
July 2 (Fri)
Oral Session

8:30  Chris CALDOW*, John CHRISTENSEN, Chris JEFFREY, Matt KENDALL, Mark MONACO
Predicting and Mapping Metrics of Fish Community Structure over Large-scales Assists Managers in Enacting Spatially Explicit Management Decisions

8:45  Johnathan T KOOL*, Felimon C GAYANILO, John W MCMANUS
A GIS-based Dynamic Decision Support System for Florida’s Coral Reefs

9:00  Rili DJOHANI*, Peter J MOUS, Alison GREEN
The Nature Conservancy’s Approach to Delineation of the Area Harboring the Richest Reefs on Earth, the Coral Triangle

9:15  Herman S J CESAR*, Pieter Van BEUKERING
Ecological Economic Modeling and Valuation Meta-analysis for Coral Reefs as Tools for Marine Protected Area Management

9:30  Eric PETERSON*, Maria BEGER, Silvia PINCA
Three-dimensional Model of Atoll Lagoon Circulation

9:45  Eric A TREML*, Patrick N HALPIN
Modeling Connectivity across the South Pacific: Applying Graph Theory to Coral Reef Conservation and Management

10:00 - 10:30  Break

10:30  Wan-Hsu TSAI*, Chang-Feng DAI, Yi-Chen YANG, Ching-Pin TUNG
Using Genetic Programming to Modeling Spatial Distribution of Corals and the Impacts of Climatic Changes: A Case Study from Taiwan

10:45  Tze-Wai TAM*, Put O ANG
Object-oriented Simulation of Coral Reef Ecosystem: Effects of Physical Disturbance and Predation on Coral Community Structure

11:00  Marilyn E BRANDT*
An Agent-based Approach to Modeling the Spread and Distribution of Coral Disease in the Florida Keys

11:15  Aletta YNIGUEZ*
Modeling the Growth Form of Macroalgae: A Prototype

11:30  Jesus E ARIAS-GONZALEZ*, Jose M CASTRO-PEREZ, Gilberto ACOSTA-GONZALEZ, Nestor MEMBRILLO-VENEGAS, Gerardo GARCIA, Rodrigo J GARZA-PEREZ, Serge ANDRÉFOUËT
Developing a Multilevel Model for the Chinchorro Bank Reserve Biosphere: A Study Case for Coral Reef Ecosystem Management

11:45  Maria BEGER*, Geoffrey P JONES, Hugh P POSSINGHAM
The Modelling of Biodiversity and Species Habitat Association Applied to Marine Reserve Network Design

12:00  Wilfredo R Y LICUANAN*, Gem CASTILLO, Wilfredo CAMPOS, Porfirio ALINO, Marie Antonette JUINIO-MENEZ
A Model for the Integration of Biophysical and Socio-economic Considerations in the Design and Deployment of Marine Protected Areas

12:15  John W MCMANUS*, Felimon C GAYANILO JR.
Agent-based Simulation of Human-Environment Interactions on Coral Reefs: A Prototype of a 3D Approach

Special Session Theme 2
Coral Reefs and Global Change VII: The State of our Understanding: A Synthesis
Convener: Mark EAKIN, Hajime KAYANNE, and all chairs
2-3-C. Connectivity in Coral Reef Systems - Scientific Challenges and Management Consequences
Convener: Peter F. SALE, Akinobu NAKAZONO, Michael J. KINGSFORD, and Robert S. STENECK

8:30 Masaya KATOH*, Atsuro OKUNO, Katsuhiko KISO, Hideaki YAMADA
Genetic Structures of Commercially Important Demersal Fishes (Lethrinus atkinsoni and Lethrinus nebulosus) Around the Ryukyu Islands, Japan

8:45 Richard M MAGSINO*, Marie Antoinette J MENEZ
Patterns of Population Genetic Structuring of Rabbitfishes Siganus argenteus (Quoy & Gaimard, 1825) and Siganus fuscescens (Houttuyn, 1782) along the Eastern Philippine Coast

9:00 Karen J MILLER*, David J AYRE
Connectivity in Reef Corals: An Assessment of Small-scale Patterns of Larval Dispersal Using Microsatellite Markers

9:15 Iliana B BAUMS*, Margaret W MILLER, Michael E HELLBERG
Limited Population Connectivity and Varying Clonal Structure of Acropora palmata in the Caribbean

9:30 Chad A MCNUTT*
Connectivity and Genetic Diversity of Montastraea faveolata across the Florida Keys National Marine Sanctuary: A Microsatellite Analysis

9:45 Jason ANDRAS*, Krystal RYPIEN, Drew HARVELL
Population Genetics of the Gorgonia ventilaris/Aspergillus sydowii Pathosystem

10:00-10:30 Break

10:30 Paul W SAMMARCO*, Amy D ATCHISON, Daniel A BRAZEAU, Gregory S BOLAND
Geographic Expansion of Corals in the Gulf of Mexico via Offshore Platforms: Community Characteristics, Recruitment, and Genetic Affinities

10:45 Vincent P RICHARDS*, James D THOMAS, Michael J STANHOPE, Mahmood S SHIVJI
High Levels of Gene Flow in Commensal, Brooding Marine Amphipods: Mitochondrial DNA Variation in Florida Populations of the Leucothoe spinacarpa Species Complex

11:00 Robert R WARNER*, Michael SHEEHY, Jennifer E CASELLE, Benjamin RUTTENBERG
Using Otolith Microchemistry to Gauge Dispersal Scales and Connectivity among Marine Populations

11:15 Paul M CHITTARO*, Camilo MORA, Usseglio PAOLO, Hogan DEREK, Brian J FRYER, Ernesto ARIAS, Peter F SALE
Using Otolith Chemistry to Measure Connectivity among Fish Populations: Difficulties Addressed in an Experiment Using Bicolor Damselfish, Stegastes partitus

11:30 Alain LO-YAT*, Mark G MEEKAN, Niels C MUNKSGAARD, David L PARRY, Serge PLANES
Using ICP-MS Analysis of Coral Reef Fish Otoliths to Examine Connectivity between Islands of French Polynesia

11:45 Simon R THORROLD*, Geoffrey P JONES, Serge PLANES, Jonathan A HARE
Labelling of Embryonic Otoliths via Maternal Contribution of Enriched Isotopes: A New Technique for Estimating Connectivity in Reef Fish Populations

1-4-C. Diseases of Coral Reef Organisms: Evolutionary Aspects, Current Status and Prognosis
Convener: Ernesto WEIL, Garrieth SMITH, and Rich ARONSON

8:30 Janet FOLEY, Susanne SOKOLOW*, Evan GIVETZ, Patrick FOLEY
 Spatial Epidemiology of Yellow band Syndrome in Montastraea spp. Coral in the Eastern Yucatan Caribbean, Mexico

8:45 Andrew W BRUCKNER*, Robin J BRUCKNER
The Impact of Yellow-Blotch Disease (YBD) on the Remote Reefs of Mona Island, Puerto Rico
9:00 Ernesto WEIL*
Impact of a White Plague-II Outbreak in Deep Reef Habitats off the South-West Coast of Puerto Rico

9:15 Jeff MILLER*, Rob WAARA, Caroline ROGERS
Monitoring the Coral Disease Plague Type II, on Two Coral Reefs in Virgin Islands National Park, St. John, US Virgin Islands

9:30 - 10:00 Break

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2-11. Coral Reefs and Global Change V: Prediction and Societal Implications of Bleaching
Convener: Al STRONG, William SKIRVING, and Ove HOEGH-GULDBERG
Poster: July 2 (Fri)

8:30 Heidi SCHUTTENBERG*
Prioritizing Research to Manage Mass Coral Bleaching: A Gap Analysis

8:45 Paul MARSHALL*
From Skepticism to Action: Responding to Climate Change Threats to Coral Reefs

9:00 Alan E STRONG*, William S SKIRVING, Gang LIU
Corals and Climate - Natural Variability or Alarm?

9:15 William J SKIRVING*, Alan E STRONG, Gang LIU, Chunying LIU, Jamie OLIVER
NOAA's Coral Reef Watch Hotspot and DHW Products: Trends in the Extent of Mass Bleaching

9:30 Simon DONNER*, Michael OPPENHEIMER, William SKIRVING, Alan STRONG
Projecting the Frequency of Coral Bleaching Events due to Possible Changes in Climate

9:45 Craig R STEINBERG*, William J SKIRVING, Scott F HERON
The Hydrodynamics of a Coral Bleaching Event

10:00 - 10:30 Break

10:30 James C BIRD*, Craig R STEINBERG, Thomas A HARDY, Lou B MASON, Richard M BRINKMAN, Lance BODE
Modeling Sub-reef Scale Thermodynamics at Scott Reef, Western Australia to Predict Coral Bleaching

10:45 Scott WOOLDRIDGE*, Terry DONE, Ray BERKELMANS, Roger JONES
Modelling Future Reefscapes on the Great Barrier Reef Resulting from Global Climate Change and Coral Bleaching

11:00 Kenneth ANTHONY*
A Dynamic Energy-Balance Approach to Coral Stress and Mortality Risks in a Variable Environment

11:15 Ove HOEGH-GULDBERG*, Hans HOEGH-GULDBERG
Biological, Economic and Social Impacts of Climate Change on the Great Barrier Reef

July 2 (Fri) 8:30～11:30 Room 5

4-24. Fostering Positive Change for Coral Reefs - Education Resources
Convener: Mark HECKMAN
Poster: July 2 (Fri)

8:30 Mark B HECKMAN*
Waikiki Aquarium: Resources and Comments on 20 Years of Coral Reef Education Programs and Materials

8:45 Thorne ABBOTT, Joseph RUAK*
Protected Area Boundary Recognition - A Novel Method for Effective and Efficient Educational Efforts

9:00 Mark S MCCAFFREY*, C Mark EAKIN, Doug HAMILTON
The Use of the NOAA Coral Reef Information System (CoRIS) to Improve Access to Coral Reef Science: Challenges and Opportunities

9:15 Judith C LANG, Janie L WULFF, Carol R FRETWELL*, Keith A ROBERSON
Coral Reef Conservation through Outreach Education
9:30 Cynthia L HUNTER*, D Eric CO, Celia M SMITH, Jennifer E SMITH, Eric CONKLIN, Randy HONEBRINK, David GULKO, Matthew ZIMMERMANN
Building Community Awareness and Management Capacity for the Control of Alien Algae in Hawaii

9:45 Tegan C HOFFMANN*
A Survey to Assess the Needs of MPAs in Building Capacity for Effective Management and Coral Reef Conservation

10:00 - 10:30 Break

10:30 Hiromi YAMAMOTO*, Masanori NONAKA, Yoshiaki KAMEI, Senzo UCHIDA
Education and Conservation of Coral Reefs at Okinawa Churaumi Aquarium

10:45 Britta SCHAFFELKE*
Knowledge Exchange to Support Coral Reef Management and Conservation

11:00 Sandra ZICUS*, Kylie JENNINGS, Justin MARSHALL
Corals and Colours: A Reef Monitoring Program for High School Students Using Coralwatch Coral Health Monitoring Charts to Assess Coral Bleaching

11:15 Simon P HARDING*, Jean-Luc SOLANDT, Dianne WALKER, Nicola J BARNARD, Joanna I DOYLE, Jaqueline F TAYLOR, Tanya H BLACKBURN, Peter S RAINES
The CCC Marine Environmental Education and Training Programme: A Multi-sectoral Approach to Community Awareness

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7th International Coral Reef Symposium

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1-2-B. Reproduction and Recruitment of Corals
Convener: Robert H. RICHIMOND and Fenny COX
Poster: July 2 (Fri)

8:30 Robert H RICHMOND*
The Effects of Pollutants on Reproduction, Recruitment and Populations of Corals

8:45 Charles H MAZEL*, Alina SZMANT, David ZAWADA
An Improved Approach to Locating Coral Recruits on Natural Surfaces and Settlement Plates

9:00 Peter L HARRISON*
Settlement Competency Periods and Dispersal Potential of Scleractinian Reef Coral Larvae

9:15 Saki HARII*, Kazuo NADAOKA, Masanobu YAMAMOTO, Hajime KAYANNE, Kenji IWAO
Larval Settlement and Lipid Content as Key Factors in Larval Dispersal Strategy for Two Corals: A Spawner Acropora tenuis and a Brooder Heliopora coerulea

9:30 Mehdi ADJEROUD*
Spatio-temporal Patterns of Coral Recruitment around Moorea, French Polynesia

9:45 Christopher A MUHANDO*
Settlement Patterns of Scleractinian Coral Larvae before and after the 1998 Coral Bleaching Event in East Africa

10:00 - 10:30 Break

10:30 Alasdair J EDWARDS*, Susan CLARK
Patterns of Coral Recruitment, Growth and Survival on Artificial Reefs in Maldives

10:45 Nanette CHADWICK-FURMAN, Zvy DUBINSKY, David ZAKAI*
Long-Term Decline in Coral Recruitment at the Coral Nature Reserve, Eilat, Northern Red Sea: 1997 to 2003

11:00 Robert S STENECK*, Lindsay HARRINGTON, Michelle J PADDACK, Suzanne N ARNOLD
Do Trophic Cascades Facilitate Coral Settlement on Caribbean Reefs?

11:15 Norman J QUINN*, Barbara L KOJIS
Invertebrate Recruitment Patterns Inside and Outside Discovery Bay, Jamaica

11:30 Shuya OOKA*, Seizou HANASHIRO, Ryouta GUSHI, Shinichi URABE, Naoki HAYASHI, Yoshihiro TAKAHASHI
Growth Process of Coral Communities on Artificial Structures and Conditions of Surrounding Environments
11:45 Curt D STORLAZZI*, Eric K BROWN, Michael E FIELD
Timing, Patterns and Speed of Inter-reef and Inter-island Coral Larval Dispersal as Elucidated by Acoustic Profilers and Radio-tracked GPS Drifters

July 2 (Fri) 14:30~16:15 Room 6

1-2-C. Reproduction and Recruitment of Corals
Convener: Robert H. RICHIMOND and Fenny COX
Poster: July 2 (Fri)

14:30 Lea L HOLLINGSWORTH*, Teresa D LEWIS, David A KRUPP, Jo-Ann C LEONG
Early Onset and Expression of Fluorescent Proteins in the Larvae of the Mushroom Coral, Fungia scutaria

14:45 Hideki HAYAKAWA*, Shuozo IMAGAWA, Yoshikatsu NAKANO, Tadashi ANDOH, Toshiki WATANABE
Molecular Analysis of Egg Proteins in Reef-building Corals

15:00 Diah Permata WIJAYANTI*, Michio HIDAKA
Studies on Parent-Offspring Relationship of the Coral Pocillopora damicornis

15:15 Shauna N SLINGSBY*
Patterns of Association between Juvenile Scleractinian Corals and Macroalgae in the Caribbean

15:30 Maria RODRIGUES, Terry HUGHES*
Effects of Overfishing on Coral Dynamics: A Large-scale Experimental Approach

15:45 Randi D ROTJAN*, Sara M LEWIS
Selective Predation on, and Differential Survival of, the Coral Porites astreoides

16:00 Stefan P WALKER*, Mark I MCCORMICK
Density Dependence in the Rate of Sex Change, Age and Size of Sex Change, and Population Sex Ratio in a Protogynous Harem Reef Fish

July 2 (Fri) 8:30~11:45 Room 7

3-6. Special Session
Toward a Stable Coral Reef Ecosystem: The Dynamics of Nutrients and Organic Matter
Convener: Yoshimi SUZUKI and Marlin ATKINSON
Poster: July 2 (Fri)

8:30 Marlin J ATKINSON*, Jim FALTER
Nutrient Dynamics of the Kaneohe Bay Barrier Reef, Hawaii

8:45 Andrew D L STEVEN*
Nitrogen Uptake, Assimilation and Regulation in Coral Patch-reefs, One Tree Island, Great Barrier Reef

9:00 Conny MAIER*, Juergen PAETZOLD, Markus G WEINBAUER, Rolf P M BAK
Nitrogen /Carbon Isotopic Composition of Madracis spp. as Indicator for Nitrogen /Carbon Assimilation and Utilization in Shallow and Deep Reefs

9:15 Christian WILD*
Coral Mucus Functions as Energy Carrier and Particle Trap in the Reef Ecosystem

9:30 Guy S MARION*, Robert B DUNBAR, David A MUCCiarone
Organic Nitrogen in Coastal Coral Reef Skeletons Reveals Isotopic Traces of an Agricultural Revolution

9:45 Jasper M DE GOEL*, Fleur C VAN DUYL
Coral Cavities Are Sinks of Dissolved Organic Matter (DOM)
10:30 Allison Y BEAUREGARD*
Evaluating Cycling of Carbon and Nitrogen by Porites Using in Situ Aquarium Experiments

10:45 Kimio FUKAMI*, Saori TOTTORI, Yoshimi SUZUKI, Beatriz E CASARETO, Yutaka IKEDA, Katsumi YOSHIDA, Yutaka TATEDA
Roles of Microbes in the Carbon Flux for Evaluating Potential CO₂ Fixation in Coral Reef Ecosystems

11:00 Yoshimi SUZUKI*, Beatriz E CASARETO, Loïc CHARPY, Jean BLANCHOLT
Organic Matter Dynamics in Coral Reef in Miyako Island, Okinawa

11:15 Claudio RICHTER*
Pelagic-Benthic and Oceanic-Neritic Coupling in a Red Sea Fringing Reef

11:30 Vincent FAURE*, Christel PINAZO, Jean-Pascal TORRETON, Pascal DOUILLET
A 3D Coupled Physical-Biogeochemical Model to Simulate Biogeochemical Recycling in a Pelagic Ecosystem in the South-West Lagoon of New Caledonia

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**4-8. Critical Appraisal of Local, Customary, Participatory and Co-management**

Convener: Nicholas V. C. POLUNIN

Poster: July 2 (Fri)

8:30 Leah L BUNCE*
Understanding the Human Dimension of Coastal Management: How Socioeconomic Information Can Benefit Coral Reef Conservation Initiatives?

8:45 Elizabeth A DINSDALE*
Assessing Coral Reef Condition: Eliciting Community Meanings

9:00 Annette MUEHLIG-HOFMANN*, Nicholas V C POLUNIN, Selina STEAD, Nicholas A J GRAHAM
Community-based Marine Resource Management in Fiji: From Yesterday to Tomorrow

9:15 Jane TURNBULL*
The (Dis)Connection between Internationally-led Initiatives Assessing the State of Coral Reefs and Local Policy-making: A Fijian Case Study

9:30 Tim MCCLANAHAN, Jamie G DAVIES*, Joseph MAINA, Stephen MANGI
Factors Influencing the Attitudes of Fishermen and Park Personnel Towards Closed and Gear Restricted Area Management

9:45 Nisit RUENGSAWANG, Thamasak YEEMIN*
Management Intervention for Coral Reefs in the Gulf of Thailand

10:00 - 10:30 Break

10:30 Simon FOALE*
Is Coral Reef Conservation Possible without Science Education in Melanesia? Is Science Education Possible without Development?

10:45 Michael J MARNANE*, Tim R MCCLANAHAN, Joshua CINNER, Tracy H CLARK, William KIENE, Rizya ARDIWIJAYA, John BEN, Ian LIVIKO, Shinta PARDEDE, Joni WIBOWO, Ruby YAMUNA
Evaluating the Effectiveness of Coral Reef Management Strategies in the Indo-Pacific

11:00 Joshua E CINNER*
Socioeconomic Factors Influencing Traditional Coral Reef Management

11:15 Alifereti TAWAKE*, Ratu Pio RADIKEDIKE
Marrying Traditional Resource Management Practices and Modern Science in an Effort to Effectively Conserve and Sustain Local Fisheries at Village Level in Fiji

11:30 Seiji NAKAYA*, 'Asipeli PALAKI
Importance of Involving Land-less Villagers Who Depend Heavily on Coastal Resources in the Management of MPAs in Tonga

11:45 Christopher HAWKINS, Selaina VAITAUTOLU*, Fatima SAUAFEA
Marine Resource Management Challenges in Traditional Societies: Managing and Conserving Resources at the Community Level
8:30 Risa G ORAM*
Marine Protected Area Plan for American Samoa: Status, Effectiveness, and Future Steps

8:45 G Robin SOUTH*, Posa A SKELTON, Lyndon DEVANTIER, Emre TURAK, Grevo GERUNG
Marine Protected Areas and Biodiversity Conservation; Bunaken National Park, Indonesia and Palolo Deep Marine Reserve, Samoa

9:00 Kai-J KUHLMANN*
Local Stakeholders Diverse Management Approaches of Marine Protected Areas in Two Coastal Provinces in the Central Philippines

9:15 Sakanan PLATHONG*
The Coral Reef Management Plan for Mu Ko Chumphon Marine National Park, Thailand

9:30 Michael A ROSS, Nora E ROSS, Mario AMORES*, Alfonso AMORES, Dewey MONSATO, Wilson MARIBOJOC
Putting Reef Check and SocMon to the Test: Cost-effective Approaches and Results to Improved Reef Monitoring and Marine Protected Area (MPA) Management in a Complex “Urban” Environment

9:45 - 10:15 Break