

CONFERENCE AGENDA

SUNDAY, MAY 20, 2007

2:00 pm – 6:00 pm **Registration** (20 Chimneys in the MIT Stratton Student Center, Rm W20-306)

MONDAY, MAY 21, 2007

7:30 am – 8:30 am **Registration and Continental Breakfast** (Kresge Auditorium)

8:30 am – 9:00 am **Welcome and Introduction**
Chrys Chrysostomidis, Director MIT Sea Grant College Program
James Carlton, Co-Convener
Darlene Smith, PICES
Judith Pederson, Conference Chair

PLENARY SESSION SPONSORED BY ICES (Kresge Auditorium)

Introducer: Judith Pederson, MIT Sea Grant College Program

8:45 am – 9:30 am **GOING AGAINST THE FLOW: RETENTION, RANGE
LIMITS AND INVASIONS IN ADVECTIVE ENVIRONMENTS**
J.E. Byers, University of New Hampshire

SESSION 1 **Patterns in Time and Space** (*Kresge Auditorium*)

Chair: Judith Pederson, MIT Sea Grant College Program

9:30 am - 9:50 am **ALIEN SPECIES IN THE MEDITERRANEAN SEA – PATTERNS OF
INVASION IN TIME AND SPACE**
B.S. Galil, National Institute of Oceanography, Israel

9:50 am – 10:10 am **PATTERNS AND IMPACTS OF MARINE BIOINVASIONS IN SOUTH
AFRICA**
C. Griffiths and T. Robinson, University of Cape Town

10:10 – 10:30 am **PATTERNS OF INVASIONS IN TIME AND SPACE**
F. Andaloro, A. Annunziatellis, F.M. Passarelli, S. Agnesi, E. Azzurro,
and L. Castriota, ICRAM, Italy

10:30 – 11:00 am **BREAK**

SESSION 2 **Patterns and Predictions** (*Kresge Auditorium*)

Chair: Anna Occhipinti-Ambrogi, Pavia University

11:00 am – 11:20 am **PREDICTIONS IN AN INVADDED WORLD - PART I: USING NICHE
MODELS TO PREDICT DISTRIBUTIONS OF MARINE/ESTUARINE
SPECIES AT THE HABITAT SCALE**
H. Lee II, U.S. Environmental Protection Agency and D.A. Reusser,
U.S. Geological Survey

- 11:20 am – 11:40 am **PREDICTIONS IN AN INVADED WORLD - PART II: USING NICHE MODELS TO PREDICT DISTRIBUTIONS OF MARINE/ESTUARINE SPECIES AT THE ESTUARY SCALE**
D.A. Reusser, U. S. Geological Survey and H. Lee II, U.S. Environmental Protection Agency
- 11:40 am – 12:00 N **AQUATIC INVASIVE SPECIES IN THE STRAIT OF GEORGIA, BRITISH COLUMBIA, CANADA**
T.W. Therriault, Department of Fisheries and Oceans, Canada
- 12:00 N- 12:30 pm **THE MEDITERRANEAN SEA IS A BIOINVASION HOTSPOT: TEMPORAL, SPATIAL AND ECOLOGICAL PATTERNS**
G. Rilov, Oregon State University
- 12:20 pm – 12:40 pm **GREAT BALLS OF BRYOS: NOVEL SUBSTRATE ON THE MUD FLATS IN SAN FRANCISCO BAY**
C.J. Zabin, Smithsonian Environmental Research Center, R. Obernolte, University of California, Davis, and J. Gentry, Marine Science Institute
- 12:40 pm – 1:50 pm **LUNCH**
- SESSION 3** **Ecological Impacts I (*Kresge Auditorium*)**
Chair: Chela Zabin, Smithsonian Environmental Research Center
- 1:50 pm – 2:10 pm **INVASIVE SPECIES DISRUPT THE LONG-TERM DEVELOPMENT OF A SUBTIDAL FOULING COMMUNITY IN THE SOUTHWESTERN GULF OF MAINE**
J.A. Dijkstra and L. Harris, University of New Hampshire
- 2:10 pm – 2:30 pm **MULTIPLE ASSESSMENTS OF INTRODUCED SEAWEEDS IN THE NORTHWEST ATLANTIC**
A.C. Mathieson, University of New Hampshire; J. Pederson, MIT Sea Grant College Program; C.D. Neefus, University of New Hampshire; C.J. Dawes, University of South Florida
- 2:30 pm – 2:50pm **ARE NATIVE EELGRASS (*ZOSTERA MARINA*) MEADOWS AND INVASIVE PACIFIC OYSTER (*CRASSOSTREA GIGAS*) REEFS IN WILLAPA BAY, WASHINGTON ALTERNATIVE STABLE STATES?**
Eric Buhle, University of Washington
- 2:50 pm – 3:10 pm **THE PACIFIC OYSTER *CRASSOSTREA GIGAS*: AN INTRODUCED SPECIES FOR AQUACULTURE IN EUROPEAN WATERS IN THE 1970s BECAME AN INVASIVE SPECIES IN THE LATE 1990s**
L. Miossec and P. Gouilletquer, IFREMER
- 3:10 pm – 3:30 pm **SEASONAL COEXISTENCE OF THREE INVASIVE COLONIAL ASCIDIANS (*BOTRYLLOIDES VIOLACEUS*, *BOTRYLLUS SCHLOSSERI* AND *DIDEMNUM* SP.) IN THE GULF OF MAINE**
L.G. Harris and J. Dijkstra, University of New Hampshire
- 3:30 pm **BREAK**

SESSION 4 Ecological Impacts II (Kresge Auditorium)

Chair: Gil Rilov, Oregon State University

- 4:00 pm – 4:20 pm **DOCUMENTING THE GLOBAL THREAT OF INVASIVE SPECIES TO MARINE BIODIVERSITY**
 J.L. Molnar, R. Gamboa, C. Revenga, and M. Spalding, The Nature Conservancy
- 4:20 pm – 4:40 pm **TESTING INVASIBILITY THEORY IN MARINE INVERTEBRATE COMMUNITIES BY MANIPULATING THE PROPAGULE SUPPLY OF NONINDIGENOUS SPECIES**
 E.L Johnston, R.F. Piola, B.J. Cumbo, and G.F. Clark, University of New South Wales
- 4:40 pm – 5:00 pm **A NEW INVASION OF AN OLD INVADER: THE SNAIL *BATILLARIA ATTRAMENTARIA* IN SAN FRANCISCO BAY, CALIFORNIA, USA**
 H.W. Weiskel and E.D. Grosholz, University of California, Davis; J.E. Byers, University of New Hampshire; T.C. Huspeni, University of Wisconsin; C.J. Zabin and B.A. Mohammad, Smithsonian Environmental Research Center
- 5:00 pm – 5:20 pm **A RAPID RESPONSE FRAMEWORK FOR ERADICATING MARINE INVADERS**
 A.L. Chang, University of California, Davis and G.M. Ruiz, Smithsonian Environmental Research Center

TUESDAY, MAY 22, 2007

- 7:30 am – 8:30 am **Registration and Continental Breakfast (Kresge Auditorium)**
- 8:30 am – 9:00 am **Welcome and Introduction**

PLENARY SESSION Sponsored by PICES

(20 Chimneys in the MIT Stratton Student Center, Rm W20-306)

Introducer: Hugh MacIsaac, University of Windsor

- 8:45 am – 9:30 am **FURTIVE FOES: THE ROLE OF VIRUSES ON PLANKTON DYNAMICS**
 J. Lawrence, University of New Brunswick

SESSION 5 Seeking Origins (Kresge Auditorium)

Chair: James Carlton, Williams College

- 9:30 am - 9:50 am **IDENTIFYING THE ORIGIN OF THE CRYPTOGENIC ASCIDIAN *MOLGULA MANHATTENSIS* (DE KAY, 1843)**
 D. Haydar, University of Groningen
- 9:50 am – 10:10 am **RESOLVING THE 100-YEAR DEBATE OVER THE INTRODUCTION OF THE SNAIL *LITTORINA LITTOREA* TO NORTH AMERICA**
 A.M. Blakeslee, and J.E. Byers, University of New Hampshire
- 10:10 – 10:30 am **DO HISTORY AND GENETICS AGREE? THE INVASION OF BIVALVE *GEMMA GEMMA***

P. Hoos and J. Geller, Moss Landing Marine Laboratories and R. Vrijenhoek, Monterey Bay Aquarium Research Institute

10:30 – 11:00 am

BREAK

SESSION 6

Ecological Impacts III (*Kresge Auditorium*)

Chair: Robert Whitlatch, University of Connecticut

11:00 am – 11:20 am

POPULATIONS OF THE INTRODUCED ALGA *UNDARIA PINNATIFIDA* SUFFERING DIFFERENT ANTHROPOGENIC PRESSURES DISPLAY DISSIMILAR GENETIC PROPERTIES

M. Voisin and F. Viard, Station Biologique de Roscoff

11:20 am – 11:40 am

ADAPTATION CAPACITIES OF AN INVASIVE SPECIES, THE PACIFIC OYSTER *CRASSOSTREA GIGAS*, ALONG THE FRENCH MANCHE-ATLANTIC OCEAN COASTS

A.-L. Meistertzheim, N. Le Goïc, A. Marhic, C. Tartu, and M.-T. Thébault, Laboratoire des Sciences de l'Environnement Marin (LEMAR)

11:40 am – 12:00 N

"INCONSPICUOUS" IMPACTS OF *SPARTINA ALTERNIFLORA* IN TEMPERATE EASTERN PACIFIC ESTUARIES

B.E. Feist and C.J. Harvey, Northwest Fisheries Science Center and J.L. Ruesink and A.C. Trimble, University of Washington

12:00 N – 12:20 pm

DEVELOPMENT OF MOLECULAR PROBES FOR BETTER MANAGEMENT OF INVASIVE TUNICATE SPECIES

S.E. Stewart-Clark, A. Siah, S. Greenwood, J. Davidson, F.C.J. Berthe, Atlantic Veterinary College

12:20 pm – 12:40 pm

USING GENETIC TOOLS TO ASSESS THE INTRODUCTION AND REGIONAL EXPANSION OF EUROPEAN GREEN CRABS (*CARCINUS MAENAS*)

J.A. Darling, U.S. Environmental Protection Agency, C.K. Tepolt, Independent Contractor, M.J. Blum and M.J. Bagley, U.S. Environmental Protection Agency

12:40 pm – 1:50 pm

LUNCH

SESSION 7

Ascidians (*Kresge Auditorium*)

Chair: Deniz Haydar, University of Groningen

1:50 pm – 2:10 pm

***MOLGULA FICUS*, AN ASCIDIAN NONINDIGENOUS TO THE EAST PACIFIC**

G. Lambert, University of Washington

2:10 pm – 2:30 pm

FACTORS INFLUENCING DISTRIBUTION OF *DIDEMNUM* SP. IN NARRAGANSETT BAY

L.A. Auker, University of New Hampshire and C.A. Oviatt, University of Rhode Island

2:30 pm – 2:50pm

THE MANAGEMENT OF AN INVASIVE SEA SQUIRT, *DIDEMNUM VEXILLUM*, IN NEW ZEALAND

C.M. Denny, Cawthron Institute, and A. Pannell, Marlborough Mussel Company Ltd. and A.D.M. Coutts, Cawthron Institute

- 2:50 pm – 3:10 pm **FACTORS INFLUENCING INVADER SUCCESS IN COASTAL ECOSYSTEMS: A 20 YEAR RETROSPECTIVE LOOK AT STUDIES OF SOUTHERN NEW ENGLAND NON-NATIVE ASCIDIANS**
R.B. Whitlatch, University of Connecticut and R.W. Osman, Smithsonian Environmental Research Center
- 3:10 pm – 3:30 pm **NATIVE GASTROPODS AND INTRODUCED CRABS: SHELL MORPHOLOGY AND RESISTANCE TO PREDATION IN THE NEW ENGLAND ROCKY INTERTIDAL ZONE**
S.J. Teck, University of California, Santa Barbara
- 3:30 pm **BREAK**
- SESSION 8** **Phenotypic Responses** (*Kresge Auditorium*)
Chair: Edwin Grosholz, University of California, Davis
- 4:00 pm – 4:20 pm **PHENOTYPIC PLASTICITY IN CLAW MORPHOLOGY OF THE INTRODUCED CRAB *CARCINUS MAENAS* IN RESPONSE TO NATURAL VARIATION IN PREY ARMOR AND WATER TEMPERATURE**
A.K. Baldrige and L.D. Smith, Smith College
- 4:20 pm – 4:40 pm **THE ALLOMETRY OF INVASIVE CRAB-NATIVE PREY SIZE INTERACTIONS AT DIFFERENT TEMPERATURES: A PREDICTOR OF INVASION SUCCESS?**
L.D. Smith and E.A. Callaghan, Smith College
- 4:40 pm – 5:00 pm **AN EXPERIMENTAL TEST OF EUROPEAN GREEN CRAB (*CARCINUS MAENAS*) FORAGING EFFECTS ON WINTERING SHOREBIRDS**
V. Estelle, Colorado State University and E.D. Grosholz, University of California, Davis
- 5:00 pm – 5:20 pm **RELATIVE INFLUENCE OF PREDATION AND RECRUITMENT LIMITATION ON THE INVASIVE ASIAN MUSSEL (*MUSCULISTA SENHOUSIA*)**
B.S. Cheng and K.A. Hovel, San Diego State University
- 6:00 pm – 8:30 pm **RECEPTION AT THE NEW ENGLAND AQUARIUM**
- SESSION 9** **Biofouling** (*20 Chimneys*)
Chair: Anders Jelmert, Institute of Marine Research, Norway
- 9:30 am – 9:50 am **BIOSECURITY RISKS POSED BY VESSEL HULL FOULING AND INCURSION RESPONSE TOOLS FOR THEIR MANAGEMENT**
G.A. Hopkins, A.D.M. Coutts, and B.M. Forrest, Cawthron Institute
- 9:50 am – 10:10 am **VESSEL BIOFOULING AS A VECTOR FOR INVASIVE MARINE SPECIES: BIOSECURITY NEW ZEALAND'S RESEARCH PROGRAMME**
D.A. Kluza, Biosecurity New Zealand and A. Bell, Biosecurity New Zealand

- 10:10 – 10:30 am **ASSESSING COMMERCIAL VESSEL BIOFOULING ON THE U.S. WEST COAST: DENSITY, MAGNITUDE AND FREQUENCY OF PROPAGULE DELIVERY**
I.C. Davidson, Portland State University; G.M. Ruiz, Smithsonian Environmental Research Center; and M. Sytsma, Portland State University
- 10:30 – 11:00 am **BREAK**
- SESSION 10** **Shipping Impacts I (20 Chimneys)**
Chair: David Smith, Smith College
- 11:00 am – 11:20 am **CAN OPEN-OCEAN BALLAST EXCHANGE PREVENT INVASIONS BETWEEN FRESHWATER PORTS?**
D.K. Gray, University of Windsor, T.H. Johengen, University of Michigan; D.F. Reid, National Oceanic and Atmospheric Administration; **H.J. MacIsaac**, University of Windsor
- 11:20 am – 11:40 am **REAL-TIME RISK ASSESSMENT MODEL FOR BALLAST WATER EXCHANGE IN ATLANTIC CANADA**
D. Brickman, B. An, and C. Nickerson, Department of Fisheries and Oceans, Canada
- 11:40 am – 12:00 N **PRELIMINARY INVESTIGATIONS ON THE MOLLUSCAN BIODIVERSITY SAMPLED DURING THE BIOLOGICAL PORT SURVEY OF MOMBASA, KENYA**
N.N. Wambiji, E. Mrabu, D. Odongo, V. Wanjeri, and I. Mwebi, Kenya Marine & Fisheries Research Institute
- 12:00 N – 12:20 pm **ASSESSING EFFECTS OF CLIMATE CHANGE ON THE RISK OF SHIPPING-MEDIATED INVASIONS IN THE SOUTHERN GULF OF ST. LAWRENCE**
A. Locke, J.M. Hanson, W. Perrie, and J. Chassé, Fisheries and Oceans Canada and M. Balaban, Transport Canada
- 12:20 pm – 12:40 pm **NAVIGATING FROM PAPER TO IMPLEMENTATION: CALIFORNIA'S PERFORMANCE STANDARDS FOR BALLAST WATER TREATMENT**
L.T. Takata, M. Falkner, and S. Gilmore, California State Lands Commission
- 12:40 pm – 1:50 pm **LUNCH**
- SESSION 11** **Managing Shipping and Ballast Water (20 Chimneys)**
Chair: Kevin Cote, Rhode Island Coastal Resources Management Council
- 1:50 pm – 2:10 pm **DESIGNATING AREAS FOR BALLAST WATER EXCHANGE**
E.K. Lawrence, E. Knight, S. Barry, and R. Summerson, Australian Bureau of Rural Sciences
- 2:10 pm – 2:30 pm **THE ROLE OF COMMERCIAL SHIPPING IN AQUATIC SPECIES INTRODUCTIONS: ANALYSIS OF VESSEL TRAFFIC AND BALLAST WATER DISCHARGE PATTERNS IN CALIFORNIA**
N.A. Dobroski, L.T. Takata, M. Falkner, and S. Gilmore, California State Lands Commission

2:30 pm – 2:50pm

THE EFFICACY OF BALLAST WATER EXCHANGE FOR PREVENTING THE SPREAD OF NONINDIGENOUS SPECIES AMONG THE FRESHWATER AND ESTUARINE PORTS OF THE UNITED STATES AND EUROPE

S. Santagata, Smithsonian Environmental Research Center; Z.R. Gasiunaite, Coastal Research and Planning Institute; H. Manto, Klaipeda University, Lithuania; E. Verling, Smithsonian Environmental Research Center; J.R. Cordell, University of Washington; K. Eason and J.S. Cohen, Smithsonian Environmental Research Center; K. Bacela, University of Lodz, Poland; G. Quilez-Badia, Smithsonian Environmental Research Center; T.H. Johengen, University of Michigan; D.F. Reid, National Oceanic and Atmospheric Administration; and G.M. Ruiz, Smithsonian Environmental Research Center

2:50 pm – 3:10 pm

MODELING BIOLOGICAL UNCERTAINTY RELATED TO THE CONTROL OF SPECIES INTRODUCTIONS VIA BALLAST WATER

J.F.R. Tavares, J.J. Corbett, and J. Firestone, University of Delaware and J.J. Winebrake, Rochester Institute of Technology

3:10 pm – 3:30 pm

POINTING FINGERS: HOW WAS THE AMUR GOBY (*RHINOGOBIUS BRUNNEUS*) INTRODUCED TO NORTH AMERICA?

P. Heimowitz, U.S. Fish and Wildlife Service, Pacific Region; B. Shields, Oregon State University; S. Chan, Oregon Sea Grant College Program; and A. Goto, Hokkaido University, Japan

3:30 pm

BREAK

SESSION 12

Shipping Impacts II (20 Chimneys)

Chair: Stephan Gollasch, GoConsult

4:00 pm – 4:20 pm

INVADING ECOSYSTEM ENGINEER DRAMATICALLY ALTERS BENTHIC COMMUNITIES IN AND OUT OF MARINE RESERVES

D.K. Padilla and S. Gray, Stony Brook University

4:20 pm – 4:40 pm

TOWARDS AN ICES CODE OF BEST PRACTICE FOR THE MANAGEMENT OF SHIPS HULL FOULING

A. Jelmert, Institute of Marine Research, Norway and S. Gollasch, GoConsult

4:40 pm – 5:00 pm

PRACTICAL ASPECTS OF BALLAST WATER MANAGEMENT

M. Voigt, Hamann AG

5:00 pm – 5:20 pm

OUTREACH TO REDUCE THE LIKELIHOOD OF FUTURE INTRODUCTIONS OF THE GREEN ALGA *CAULERPA TAXIFOLIA* VIA AQUARIUM RELEASES

L.J. Walters, University of Central Florida and S. Zaleski, University of Southern California

6:00 pm – 8:30 pm

RECEPTION AT THE NEW ENGLAND AQUARIUM

WEDNESDAY, MAY 23, 2007 (Kresge Auditorium)

7:30 am – 8:30 am **Registration and Continental Breakfast**
8:30 am – 9:00 am **Welcome and Introduction**

PLENARY SESSION SPONSORED BY THE NATIONAL SEA GRANT OFFICE

(Kresge Auditorium)

Introducer: Greg Ruiz, Smithsonian Environmental Research Center

8:45 am – 9:30 am **MARINE BIOINVASIONS: THE ASSESSMENT OF
IMPACTS AND DIVERSITY**
 J.T. Carlton, Williams College

SESSION 13 Ecological Impacts III (*Kresge Auditorium*)

Chair: Greg Ruiz, Smithsonian Environmental Research Center

9:30 am - 9:50 am **WILL THE EUROPEAN GREEN CRAB PERSIST IN THE PACIFIC
NORTHWEST?**
 S. Yamada, Oregon State University and **G. Gillespie**, Department of
Fisheries and Oceans, Canada

9:50 am – 10:10 am **PARASITE RELEASE AND BIOTIC RESISTANCE IN INTRODUCED
POPULATIONS OF THE SAIL-FIN MOLLY, *POECILIA LATIPINNA***
 M.E. Torchin, Smithsonian Tropical Research Institute

10:10 – 10:30 am **THE INFLUENCE OF SPATIAL SCALE ON THE RELATIONSHIP
BETWEEN NATIVE DIVERSITY AND INVASION**
 C.L. Hewitt and M.L. Campbell, Australian Maritime College and C.
Primo, Universidad de Vigo and Australian Maritime College

10:30 – 11:00 am **BREAK**

SESSION 14 Ecological and Economic Impacts (*Kresge Auditorium*)

Chair: Bella Galil, National Institute of Oceanography, Israel

11:00 am – 11:20 am **STUDY IN GEOGRAPHIC DISTRIBUTION OF MICROALGAE
ALEXANDRIUM TAMARENSE AND *ALEXANDRIUM MINUTUM*
BASED ON INTERNAL TRANSCRIBED SPACER SEQUENCES
ANALYSIS**
 L. Zheng, State Oceanic Administration, China, X. Han, Y. Zhang, and
J. Zou, Chinese Academy of Sciences and X. Wang, State Oceanic
Administration, China

11:20 am – 11:40 am **NEW PHYTOPLANKTON SPECIES IN THE BAY OF FUNDY SINCE
1995**
 J. Martin and M.M. LeGresley, Department of Fisheries and Oceans,
Canada

- 11:40 am – 12:00 N **TRANSFER OF HARMFUL ALGAL BLOOM SPECIES IN JAPANESE AND KOREAN COASTAL WATERS THROUGH NATURAL AND HUMAN ASSOCIATED DISPERSALS REVEALED BY MICROSATELLITES**
 S. Nagai, G. Nishitani, and S. Yamaguchi, Fisheries Research Agency of Japan; C. Lian, Asian Natural Environmental Science Center; N. Yasuda, Tokyo Institute of Technology; and Y. Matsuyama and S. Itakura, Fisheries Research Agency of Japan
- 12:00 N – 12:20 pm **MODELING THE ECONOMIC IMPACTS OF THE EUROPEAN GREEN CRAB ON THE U.S. WEST COAST**
 S. Lovell, U.S. Environmental Protection Agency; E. Besedin, Abt Associates Inc.; and E. Grosholz, University of California at Davis
- 12:20 pm – 12:40 pm **MONETARY ASSESSMENT OF ECONOMIC IMPACTS DUE TO SPECIES INVASIONS IN MARINE ECOSYSTEMS: NON-MARKET VALUATION APPLICATIONS IN DECISION MAKING CONTEXT**
 P.A. Nunes, University of Venice
- 12:40 pm – 1:50 pm **LUNCH**
- SESSION 15** **Impacts and Strategies** (*Kresge Auditorium*)
 Chair: Lu Eldredge, Bishop Museum, Hawaii
- 1:50 pm – 2:10 pm **WHO ARE THE MOST IMPACTING INTRODUCED AQUATIC SPECIES IN EUROPE?**
 S. Gollasch, GoConsult, Germany; B. Galil, National Institute of Oceanography, Israel; D. Minchin, Marine Organism Investigations, Ireland; V. Panov, Russian Academy of Sciences, Russia; S. Olenin, Klaipeda University, Lithuania; M. David, University of Ljubljana, Slovenia
- 2:10 pm – 2:30 pm **INVASIVE POLYCHAETES (ANNELIDA, SPIONIDAE) IN THE ATLANTIC AND PACIFIC OCEANS**
 V.I. Radashevsky, Russian Academy of Sciences, Russia
- 2:30 pm – 2:50pm **THE STRATEGIES OF AQUATIC INVASIVE ALIEN SPECIES IN CHINA**
 Y. Wang, Shandong University, China
- 2:50 pm – 3:10 pm **PREDICTING THE FUTURE SPREAD OF AN INVASIVE TUNICATE ALONG BRITISH COLUMBIA'S COASTLINE**
 L.-M. Herborg and T.W. Therriault, Pacific Biological Station, Department of Fisheries and Oceans, Canada
- 3:10 pm – 3:30 pm **MINIMIZING THE EXPOSURE OF THE NORTHWESTERN HAWAIIAN ISLANDS MARINE NATIONAL MONUMENT TO MARINE ALIEN SPECIES**
 S. Godwin, Hawaii Institute of Marine Biology & Northwestern Hawaiian Islands Marine National Monument, Ku'uilei Rodgers and Paul Jokiel, Hawaii Institute of Marine Biology
- 3:30 pm **BREAK**

SESSION 16 **Management Options** (*Kresge Auditorium*)

Chair: Marnie Campbell, Australian Maritime College

4:00 pm – 4:20 pm **THE ERADICATION OF SNOWFLAKE CORAL ON THE ISLAND OF KAUAI: 18 MONTHS LATER**

A.D. Montgomery, Hawaii Division of Aquatic Resources

4:20 pm – 4:40 pm **STYELA CLAVA INCURSION RESPONSE: AN OVERVIEW OF THE NEW ZEALAND GOVERNMENT'S RESPONSE TO A MARINE INVADER**

B.R. Gould, P. Bolger, D. Kluza, A. McFadden, and L. Patston, Biosecurity New Zealand, Ministry of Agriculture and Forestry

4:40 pm – 5:00 pm **RESEARCH ACTIVITY ON INVASIVE SPECIES IN MARINE ENVIRONMENTS OF KOREA**

E.L. Kim, D. Lim, and **Y. Lee**, National Fisheries Research and Development Institute, Korea

5:00 pm – 5:20 pm **INTERSPECIFIC COMPETITION BETWEEN FOUR INVASIVE SPECIES IN BRUDENELL RIVER, PRINCE EDWARD ISLAND, CANADA**

A.P. Ramsay and J. Davidson, University of Prince Edward Island, and D. Bourque, Department of Fisheries and Oceans, Canada

5:30 pm – 7:30 pm **POSTER SESSION AT MIT KRESGE AUDITORIUM (LOBBY)**

SESSION 17 **Barcodes: Status and Use** (*20 Chimneys*)

Chair: Vasily Radashevsky, Russian Academy of Sciences

9:30 am - 9:50 am **THE BARCODE OF LIFE DATA SYSTEM: A TOOL FOR WIDESPREAD AND EFFECTIVE INVASIVE SPECIES MONITORING ON CORAL REEFS**

R.E. Brainard, NOAA Pacific Islands Fisheries Science Center; N. Knowlton, Scripps Institution of Oceanography; J. Caley, Australia Institute of Marine Science; G. Paulay, University of Florida; E. Keenan, NOAA Pacific Islands Fisheries Science Center

9:50 am – 10:10 am **DNA BARCODING: AN EMERGING STANDARD FOR SPECIES IDENTIFICATION BY NON-TAXONOMISTS**

D.E. Schindel and **K. Ferrell**, Smithsonian Institution

10:10 – 10:30 am **USE OF DNA BARCODES FOR DETECTION OF GELATINOUS INVADERS**

B.D. Ortman and A. Bucklin, University of Connecticut

10:30 – 11:00 am **BREAK**

SESSION 18 **Molecular Tools for Detection** (*20 Chimneys*)

Chair: Nancy Balcom, University of Connecticut

- 11:00 am – 11:20 am **MOLECULAR TOOLS FOR INVASIVE SPECIES DETECTION WHEN SPECIES-LEVEL TAXONOMIC KNOWLEDGE IS SPARSE**
K.E. Hoagland, IM Systems Group & National Oceanic and Atmospheric Administration
- 11:20 am – 11:40 am **DETECTION OF NONINDIGENOUS MARINE INVERTEBRATES IN A MEDITERRANEAN INDUSTRIAL PORT USING DNA ASSISTED IDENTIFICATION TECHNIQUES**
C. Vogler and G. Wörheide, Universität Göttingen
- 11:40 am – 12:00 N **FROM PRINCIPLE TO PRACTICE: IMPLEMENTING EARLY DETECTION AND RAPID RESPONSE EFFORTS IN MASSACHUSETTS WITH LIMITED RESOURCES**
C.A. Hernick, Massachusetts Office of Coastal Zone Management
- 12:00 N – 12:20 pm **INTO THE PAN, NOT INTO THE WILD: ADDRESSING LIVE SEAFOOD RELEASES**
J. Mathieu, University of California at Berkeley and **J. Pederson**, MIT Sea Grant College Program
- 12:20 pm – 12:40 pm **MUDDYING THE WATERS: FACTORS COMPLICATING OUTREACH AND COMMUNICATION ABOUT INVASIVE SPECIES**
W.Y. Wong, Brown University
- 12:40 pm – 1:50 pm **LUNCH**
- SESSION 19** **Risk Assessments and Impacts (20 Chimneys)**
Chair: Henry Lee, II, U.S. EPA
- 1:50 pm – 2:10 pm **PRIORITIES FOR MARINE BIOSECURITY RESEARCH**
N.S. Parker, Biosecurity New Zealand
- 2:10 pm – 2:30 pm **ASSESSMENT OF BIOLOGICAL POLLUTION IN AQUATIC ECOSYSTEMS: RATIONALE AND QUANTITATIVE APPROACH**
S. Olenin and D. Daunys, Klaipeda University, Lithuania, and D. Minchin, Marine Organism Investigations, Ireland
- 2:30 pm – 2:50pm **INCREASING VALUE OF AQUATIC INVASIVE SPECIES: THE RISKS AND BENEFITS OF INCENTIVE-BASED CONTROL PROGRAMS**
C.S. Culver, University of California Sea Grant Extension Program, and J.E. Dugan, University of California at Santa Barbara
- 2:50 pm – 3:10 pm **A BIOPOLLUTION INDEX FOR ASSESSING THE INVASIVENESS OF ALIEN SPECIES**
D. Daunys and S. Olenin, Klaipeda University, Lithuania; D. Minchin, Marine Organism Investigations, Ireland
- 3:10 pm – 3:30 pm **INVASION AND TERRESTRIALIZATION OF INTERTIDAL SALT MARSH BY AN EXOTIC TREE, TAMARISK**
J.A. Crooks, Tijuana River National Estuarine Research Reserve; D. Talley, San Francisco Bay National Estuarine Research Reserve; C. Whitcraft and L. Services; J. Gaskin, USDA-ARS-NPARL

3:30 pm **BREAK**

SESSION 20 **Gathering and Sharing Information** (20 Chimneys)

Chair: Jeff Crooks, Tijuana River National Estuarine Research Reserve

4:00 pm – 4:20 pm **ADAPTING AQUATIC (FRESHWATER) WEED RESEARCH AND MANAGEMENT METHODOLOGIES FOR CONTROL OF INVASIVE SEAWEEDS**

L.W.J. Anderson, U.S. Department of Agriculture - Agricultural Research Service

4:20 pm – 4:40 pm **INTRASPECIFIC HYBRIDIZATION OF NATIVE AND INTRODUCED SUBSPECIES OF *PHRAGMITES AUSTRALIS* IN NORTH AMERICA**

L.A. Meyerson and D.V. Viola, University of Rhode Island

4:40 pm – 5:00 pm **ARE CITIZEN SCIENTISTS THE SOLUTION TO EARLY DETECTION?**

D.G. Delaney and B. Leung, McGill University, Montreal

5:00 pm – 5:20 pm **PUBLIC MONITORING AND GOVERNMENTAL MANAGEMENT OF MARINE BIOINVASIONS IN THE NETHERLANDS**

A. Gittenberger, National Museum of Natural History, Naturalis

5:30 pm – 7:30 pm **POSTER SESSION AT MIT KRESGE AUDITORIUM (LOBBY)**

THURSDAY, MAY 24, 2007

7:30 am – 8:30 am **Registration and Continental Breakfast** (Kresge Auditorium)

8:30 am – 9:00 am **Welcome and Introduction**

SESSION 21 **Aquaculture Introductions and Impacts** (Kresge Auditorium)

Chair: Darlene Smith, Department of Fisheries and Oceans, Canada

9:00 am – 9:20 am **MODELING INVASIONS BY INVERTEBRATE SPECIES WITH PELAGIC LARVAE IN ESTUARINE AND COASTAL SYSTEMS: AN ARGUMENT FOR SHORT GENERATIONAL DISPERSAL DISTANCE**

R. Mann and J.M. Harding, Virginia Institute of Marine Science

9:20 am – 9:30 am **ECOLOGICAL IMPACTS OF A NEW SUBSTRATUM, INVASIVE-OYSTER-REEFS (*CRASSOSTREA GIGAS*, THUNBERG), ON INTERTIDAL COMMUNITIES, BRITTANY (FRANCE)**

M. Lejart and C. Hily, Université de Bretagne Occidentale

9:30 am - 9:50 am **NEGATIVE IMPACTS OF THE INVASIVE SEA URCHIN (*CENTOSTEPHANUS RODGERSII*) ON COMMERCIALY FISHED ABALONE (*HALIOTIS RUBRA*)**

E.M.A. Strain, C.R. Johnson, and R.J. Thomson, University of Tasmania

9:50 am – 10:10 am **INTRODUCTION OF THE WHITE SHRIMP *LITOPENAEUS VANNAMEI* FOR AQUACULTURE PURPOSES: IS IT GOOD OR BAD FOR THAILAND?**

S. Chavanich and V. Viyakarn, Chulalongkorn University, Thailand and W. Senanan and S. Panutrakul, Burapha University, Thailand

10:10 am – 10:30 am **RISK ASSESSMENT OF AN INVADER: *RAPANA VENOSA* IN THE NORTHERN ADRIATIC SEA**

D. Savini and **A. Occhipinti-Ambrogi**, University of Pavia, Italy

10:30 – 11:00 am **BREAK**

SESSION 22 **Impacts and Management Options (*Kresge Auditorium*)**

Chair: Roger Mann, Virginia Institute of Marine Science

11:00 am – 11:20 am **MARINE BIOINVASIONS IN TROPICAL AND SUBTROPICAL ECOSYSTEMS OF THE SOUTHWEST ATLANTIC: CURRENT STATUS AND MANAGEMENT PERSPECTIVES**

R.M. Lopes and E.C. de Oliveira, University of Sao Paulo; A. Junqueira, Federal University of Rio de Janeiro; M.C. Villac, University of Taubate; M. Tavares, University of Sao Paulo; **F.C. Fernandes**, Institute for Marine Studies; I.N.G. Rivera, Y. Schaeffer-Novelli, and P. Cunningham, University of Sao Paulo

11:20 am – 11:40 am **COASTAL SALT MARSH CHANGE INVESTIGATION IN WANGGANG AREA, JIANGSU PROVINCE, CHINA USING LANDSAT TM IMAGERIES**

J. Li and S. Gao, Nanjing University

11:40 am – 12:00 N **POLLUTION DECREASES NATIVE DIVERSITY AND INCREASES INVADER DOMINANCE**

R.F. Piola and E.L. Johnston, University of New South Wales, Australia

12:00 N – 12:20 pm **APPEARANCE OF THE INVASIVE *CAULERPA RACEMOSA* VAR. *CYLINDRACEA* (SONDER) VERLAQUE, HUISMAN, BOUDOURESQUE (BRYOPSIDALES, CHLOROPHYTA) ALONG THE SANTA LIBERATA COAST (SOUTH TUSCANY, ITALY)**

F. Birardi and M. Lenzi, Orbetello Pesca Lagunare s.r.l.; E. Franchi, University of Siena; P. Gennaro, Central Institute for Marine Research; R. Roffilli, University of Siena; D. Solari, Orbetello Pesca Lagunare s.r.l.; and S. Focardi, University of Siena

12:20 pm – 12:40 pm **CONCLUDING REMARKS**

POSTER PRESENTATIONS

The Poster Session is on Wednesday, May 23rd from 5:30 to 7:30 pm in MIT Kresge Auditorium. Light refreshments will be served. Poster Presentations will be on display throughout the conference. Posters may be hung on starting Monday, May 21st at 9:00 am and removed on Thursday, May 24th.

Mapping and Data Management

MAPPING INVASIONS IN REAL TIME

C. Adams and J. Pederson, MIT Sea Grant College Program

NON-NATIVE AQUATIC ORGANISMS IN THE COASTAL WATERS OF CALIFORNIA

S. Foss, P.R. Ode, M. Sowby, and M. Ashe, California Department of Fish and Game

Patterns

WISH YOU WEREN'T HERE: GEOGRAPHIC PATTERNS OF INVASION IN PACIFIC COAST ESTUARIES OF THE UNITED STATES

H. Lee II, U.S. Environmental Protection Agency and D.A. Reusser, U.S. Geological Survey

NONINDIGENOUS INTERTIDAL SPECIES IN BRITISH COLUMBIA, CANADA

G.E. Gillespie, Department of Fisheries and Oceans, Canada

HARBOUR SURVEY FOR INVASIVE SPECIES IN NEWFOUNDLAND, CANADA

A.G. Callahan, Memorial University; T. Baines, Fisheries and Oceans Canada; P. Sargent, R. Boland, and R. O'Donnell, Memorial University; S. Kenny, Fisheries and Oceans Canada; C. Vickers, Memorial University; C.H. McKenzie, Fisheries and Oceans Canada; and D. Deibel, Memorial University

INVASIVE SPECIES ON KOREAN COASTAL WATERS

D.-K. Ahn, D. Lim, and Y. Lee, National Fisheries Research and Development Institute, Korea

NEW RECORD OF *PENILIA AVIROSTRIS* DANA, 1849 (CLADOCERA) IN THE GULF OF ST. LAWRENCE

R. Bernier and A. Locke, Department of Fisheries and Oceans, Canada

ASCIDIANS OF THE SOUTHERN GULF OF CHIRIQUÍ, PACIFIC-PANAMA: A NATIVE FAUNA AT RISK TO BIOINVASION

M.R. Carman, S. Molyneaux, R. Ji, and S. Sievert, Woods Hole Oceanographic Institution

Shipping and Hull Fouling

RECREATIONAL VESSEL HULL FOULING AS A TRANSPORT VECTOR FOR AQUATIC INVASIVES

N. Balcom and R. Whitlatch, University of Connecticut and R. Osman, Smithsonian Environmental Research Center

INTERVIEWS FROM PRINCE EDWARD ISLAND, CANADA, ON BOATER HABITS AND THE POTENTIAL SPREAD OF INVASIVE SPECIES

A. Locke, Fisheries and Oceans Canada; E.A. Darbyson, Dalhousie University; J.M. Hanson, Fisheries and Oceans Canada; and M. Willison, Dalhousie University

INFLUENCES OF ANTIFOULING TREATMENTS ON MARINE INVASION PATHWAYS

K.A. Dafforn, T. Glasby, and E. Johnston, University of New South Wales

HIGH-DENSITY VECTOR EVENTS AND BIOINVASION RISK REDUCTION: ASSESSING THE INFLUENCE OF TRANSIT AND IN-WATER CLEANING ON THE BIOFOULING OF OBSOLETE VESSELS

I.C. Davidson, Portland State University; G. Ruiz, Smithsonian Environmental Research Center; and M. Sytsma, Portland State University

POTENTIAL TRANSFER OF *VIBRIO CHOLERAE* BY SHIPS AMONG PORTS IN THE MEDITERRANEAN SEA: THE PORTAL PROJECT

L.A. Drake, U.S. Coast Guard Academy and B. Galil, National Institute of Oceanography, Israel

CONTROL OF POTENTIALLY INVASIVE SPECIES PRESENT IN BALLAST WATER THROUGH SHIPBOARD CHLORINE DIOXIDE TREATMENT

A.M. Cox, R.G. Campbell, D.C. Smith, and L. Maranda, University of Rhode Island and M.D. Hasson, Ecochlor, Inc.

BALLAST WATER TREATMENT OF PHYTOPLANKTON: HOW DO WE MEASURE IF A TREATMENT TECHNOLOGY MET THE MARK?

D.J. Lawrence and R.P. Herwig, University of Washington

PREVENTING BIOINVASIONS FROM BALLAST WATER: MARCH OF THE TREATMENT TECHNOLOGIES

D.J. Lawrence, R.P. Herwig, D.A. Lawrence and J.R. Cordell, University of Washington

COORDINATING BALLAST WATER REPORTING BETWEEN FEDERAL AND STATE PROGRAMS: A PILOT PROJECT ON THE LOWER COLUMBIA RIVER

C. Simkanin and M. Sytsma, Portland State University; G.M. Ruiz and A.W. Miller, Smithsonian Environmental Research

Ecology

MULTIPLE EPIBIONT UTILIZATION OF THE INTRODUCED PERIWINKLE *LITTORINA LITTOREA* IN THE GULF OF MAINE

L.C. Page and J.E. Byers, University of New Hampshire

POTENTIAL ECOSYSTEM CHANGES CAUSED BY AN INTRODUCED RED ALGA, *GRATELOUPIA TURUTURU* YAMADA, IN LONG ISLAND SOUND

R. Gladych and N.P. Blaschik, University of Connecticut; G.P. Kraemer, State University of New York; R. Whitlatch and C. Yarish, University of Connecticut

INVASIVE TUNICATE SPECIES IN THE BAY OF FUNDY, EASTERN CANADA

J. Martin, M.M. Le Gresley, and P. McCurdy, Fisheries and Oceans Canada; B. Thorpe, Department Fisheries; and B.D. Chang, S.M.C. Robinson, and F.H. Page, Fisheries and Oceans Canada

ESTABLISHMENT OF THE COLONIAL ASCIDIAN *DIDEMNUM* SP. ON GRAVEL HABITATS OF NORTHERN GEORGES BANK – EFFECTS ON BENTHIC FAUNA AND A PROBABLE SOURCE FOR FURTHER INFESTATION OF THE BANK

P.C. Valentine, U.S. Geological Survey; J.S. Collie, University of Rhode Island; R. Reid, NOAA Fisheries

**RECENT INVASIONS BY ASIAN COPEPODS IN THE COLUMBIA-SNAKE RIVER SYSTEM,
WASHINGTON, USA**

J. Cordell, University of Washington; S.M. Bollens, Washington State University; R. Draheim
and M. Sytsma, Portland State University

**ESTABLISHED POPULATION OF THE NORTH AMERICAN HARRIS MUD CRAB,
RHITHROPANOPEUS HARRISII, IN THE PANAMA CANAL**

D.G. Roche, McGill University and M.E. Torchin, Smithsonian Tropical Research Center

A RARE EXAMPLE OF HABITAT EXPANSION BY AN INTRODUCED MARINE PREDATOR

N.A. Dobroski, University of Rhode Island; J.T. Carlton, Williams College; R.L. Fineman, Mount
Holyoke College; and H.C. Olins, Wesleyan University

**THE IMPACTS OF THE INVASIVE CRAB *HEMIGRAPSUS SANGUINEUS* ON A
CRUSTACEAN-FEEDING GUILD OF FISHES IN LONG ISLAND SOUND**

K.B. Heinonen and P.J. Auster, University of Connecticut

**NINE YEARS OF *HEMIGRAPSUS SANGUINEUS* IN RYE, NEW YORK: POPULATION
DYNAMICS AND INFLUENCE OF HABITAT**

G.P. Kraemer, Purchase College (SUNY)

**PHYSICAL FACTORS MEDIATE EFFECTS OF GRAZING BY A NONINDIGENOUS SNAIL
SPECIES ON SALT MARSH CORDGRASS, *SPARTINA ALTERNIFLORA* IN NORTHEASTERN
US SALT MARSHES**

M.C. Tyrrell and M. Dionne, Wells National Estuarine Research Reserve

**EFFECT OF HABITAT ALTERATION AND INVASION BY EXOTIC SPECIES ON
MANGROVE ECOSYSTEMS IN FLORIDA**

M. Donnelly and L. Walters, University of Central Florida

**REATTACHMENT AND GROWTH STYLES OF NATIVE AND INVASIVE COLONIAL
ASCIDIANS**

M.R. Carman, Woods Hole Oceanographic Institution and H.M. Allen, Falmouth Academy

Outreach

**YOU CAN LEAD HORSES TO BALLAST WATER INFORMATION, BUT YOU CAN'T MAKE
THEM REMEMBER IT: EVALUATING THE WCBOP'S AQUATIC INVASIVE SPECIES
BALLAST WATER OUTREACH**

A. Dahlstrom, University of California

**AQUATIC INVADERS: A NATIONAL PARTNERSHIP TO UTILIZE FREE CHOICE
LEARNING TO REDUCE INTRODUCTION AND SPREAD OF AQUATIC INVASIVE SPECIES**

A.J. Power, University of Georgia; P. Sloan, North Carolina Aquarium at Fort Fisher; and K.M.
Patterson, North Carolina Sea Grant

Management and Risk Assessment

**IDENTIFYING SIMILARITIES: AN APPLICATION FOR THE BALLAST WATER RISK
ASSESSMENT**

A.L. Neto and L.F.L. Legey, Federal University of Rio de Janeiro

ORGANISM IMPACT ASSESSMENTS: RISK ANALYSIS FOR POST-INCURSION MANAGEMENT

M. Campbell, Australian Maritime College

POTENTIAL RISKS OF THE INTRODUCTION OF NONINDIGEOUS *PENEAUS VANNAMEI* FOR AQUACULTURE PRACTICES IN ERITREA

I.T. Weldemichael, Wageningen University

A RISK ASSESSMENT OF THE CLUBBED TUNICATE *STYELA CLAVA* (ASCIDIACEA) IN NEW ZEALAND

D.A. Kluza, Biosecurity New Zealand, and I. Ridgway, University of Wales

THE INVASION OF THE ATLANTIC AND CHANNEL COASTS OF FRANCE BY THE ALIEN OYSTER, *CRASSOSTREA GIGAS*: ASSESSMENT, CAUSES, ECOLOGICAL AND SOCIO-ECONOMICAL CONSEQUENCES--THE PROGIG RESEARCH PROGRAM

C. Hily, CNRS, IUEM, University of Western Brittany

ECONOMIC ANALYSIS OF MARINE INVASIVE SPECIES MANAGEMENT AND POLICY

L.M. Fernandez, University of California, Riverside

THE NEW EUROPEAN ON-LINE JOURNAL "AQUATIC INVASIONS": AN IMPORTANT PART OF THE EUROPEAN EARLY WARNING SYSTEM ON AQUATIC INVASIVE SPECIES

S. Gollasch, GoConsult, Germany; V. Panov, Russian Academy of Sciences, Russia

THE INTERNET AS A DISPERSAL MECHANISM FOR LIVE MARINE SPECIES

L.D. Smith and K.M. Hornby, Smith College

Other

ALTERNATIVES TO MITOCHONDRIAL MARKERS FOR PHYLOGENETICS AND POPULATION GENETICS IN *DIDEMNUM* SP.

L.M. Stefaniak, H. Zhang, and R.B. Whitlatch, University of Connecticut; and G. Lambert, University of Washington

GENETIC EVIDENCE FOR MULTIPLE CRYPTIC INTRODUCTIONS OF THE INVASIVE COLONIAL HYDROID *CORDYLOPHORA* SPP.

J.A. Darling, U.S. Environmental Protection Agency and N.C. Folino-Rorem, Wheaton College

GENETIC VARIATION OF A RECENT INVASION: DIVERSITY WITHIN AND AMONG POPULATIONS OF THE CHARRU MUSSEL

E.A. Hoffman, L.J. Walters, and N.K. Gillis, University of Central Florida

TECHNIQUES TO TREAT SEED MUSSELS (*PERNA CANALICULUS*) ON FARMS INFECTED WITH THE INVASIVE SEASQUIRT (*DIDEMNUM VEXILLUM*) IN THE MARLBOROUGH SOUNDS, NEW ZEALAND

C.M. Denny, Cawthron Institute

CRITICAL ANALYSIS OF THE IMPACTS OF INVASION TO THE NATURAL PROCESSES IN HIGHLY VULNERABLE COASTAL AREAS OF BANGLADESH

M.M. Islam, University of Toronto

