

National Shellfisheries Association

QUARTERLY-NEWSLETTER

JANUARY 2002 - WINTER ISSUE

WALDOBORO, MAINE

President's Message

The year has gone so fast. This is a common lament of outgoing Presidents. And I must agree. While my year as President has raced by, I want to highlight some of the goals we achieved in the ongoing functioning of the association and acknowledge the support of the many NSA members, in particular the chairs and members of the various committees and the NSA Executive Committee.

As a strong and solid membership base is key to the long-term success of the association in providing a secure financial foundation, as well as intellectual base, we have undertaken several initiatives on this front. Aswani Volety reports on the successful increase in new members this past year. The "membership contest" is again underway and lets actively try to reach the 1000 member level! We are also currently printing new color glossy membership brochures. If you wish to have a few to help your efforts in encouraging colleagues or fellow students or industry representatives to join, then please contact the membership committee. We are also finalizing the production of a membership booklet. Ami Wilbur will soon have a draft booklet ready for printing and distribution.

During the past year, we have also had a successful transition to a new NSA Treasurer (Dave Bushek) and new NSA Newsletter Editor (Chris Davis). Our finances and newsletter are both in good hands. Also Gef Flimlin spearheaded the production of a fund raising brochure for the Student Endowment Fund. Please keep those contributions flowing.

The program and registration form are included in this issue of the NSA Newsletter. Carolyn Friedman has done a tremendous job in organizing a very good program for our Mystic meeting. There are many sessions of interest to all members including some strong industry sessions and workshops. As well, Evan Ward has done a stellar job in looking after all the local arrangements and social activities. Once again, we will be featuring the highly successful and entertaining student auction. Please send auction items to Sandy Shumway or bring them along with you to the meeting. Remember all proceeds go to support the Student Endow-

ment Fund. Also, send your registration form in early. This can mean a saving for you and help us in planning a successful and efficient meeting.

Congratulations to Maille Lyons, who was awarded the fourth annual Melbourne R Carriker Student Research Grant. Ms. Lyons is a graduate student with the Department of Marine Sciences, University of Connecticut.

Election ballots have been prepared and printed and will soon be sent to all members. This is your chance for a say in the future of the association. Send your ballots in right away!

Lastly, once again thanks to the many people whom contributed to the association. My personal thanks to the members, especially many of the past presidents, for their support over that past year. NSA is truly a wonderful association. I encourage everyone, especially students, to consider volunteering your time for the association. See you in Mystic.

Jay Parsons

In this issue:

- ***Program NSA-2002***
- ***Registration NSA-2002***
- ***Treasurers Report***
- ***Industry Rant and Rave***
- ***Recruits Corner***
- ***Membership Report***

Treasurer's Update

Although I was officially elected Treasurer at our last meeting, I didn't actually receive the books until after our fiscal year which ended September 30, 2001. Between the last meeting and October, Dan Kreeger was working harder for us than ever as he served as President Elect and continued to act as treasure while he trained me. On behalf of the membership, I'd like to say thanks Dan. I am happy to report that we are in very good financial shape. Under Dan's careful management we have met a goal set several years ago by John Kraeuter when he was president, of maintaining approximately a year's worth of operating funds in our accounts. NSA's current balance is more than \$110,000. The purpose of this goal is to maintain our financial health and prevent us from running short of funds when large amounts must be provided to complete our essential activities (e.g., produce issues of JSR, front money to organize our meetings, etc.). I intend to maintain the financial vigilance of those that held this office before me and keep NSA finance healthy so that the Association can do its best to support you, our members.

In line with the theme of financial stability, you should have received your annual dues invoice by now. If you haven't paid it, please take a moment to do so now. As you do so, consider recruiting your friends, colleagues and students that may benefit from being a member. The health of NSA depends on its membership and more members means a stronger society. The form in this newsletter can be copied or used as is or they can printout a membership form from our website (www.shelfish.org). Should you need any assistance with any of your financial matters concerning NSA (dues, JSR page charges, abstract fees, etc.), just contact me and we'll get it straightened out.

Dave Buchek
Treasurer

The Melbourne R. Carriker Student Research Grant

The National Shellfisheries Association is pleased to announce that the fourth annual Melbourne R Carriker Student Research Grant has been awarded to Ms. Maille Lyons, a Ph.D. graduate student of Dr. Evan Ward in the Department of Marine Sciences, University of Connecticut. The title of Ms. Lyons' grant proposal was "The trophic fate of organic aggregates filtered by suspension feeding bivalves?" This competitive research grant is named in honor of Professor Carriker, one of NSA's most distinguished past-Presidents. The grant awards an NSA student member \$1000 for non-travel related expenses associated with undertaking graduate research. Ms. Lyons' award is particularly relevant because Dr. Ward studied under Professor Carriker as a graduate

student. Congratulations Ms. Lyons!

I would like to thank Aswani Voley, Mark Luckenbach, Loren Coen, and Maureen Krause for their time in reviewing this year's applications. The next opportunity to apply for the Melbourne R Carriker Student Research Grant will be in the summer of 2002. Details concerning the application process will appear in the NSA Newsletter and on the NSA web site at that time.

Jay Parsons
President

Student Endowment Fund Drive

As all will agree, the inclusion of the student population at the NSA Annual Meetings is extremely important to the future of the shellfish industry and shellfish research. NSA supports the travel of students each year to the meeting through donations especially the Student Endowment Auction held at each annual meeting. Last fall over 900 brochures were mailed out to the NSA membership to initiate a drive to increase the money in the Endowment Fund and hopefully increase the number of students attending the meeting. To date only 10 members have responded with donations. If you have lost your brochure and would like another, please contact Gef Flimlin at "flimlin@aesop.rutgers.edu" and if you still have it sitting on your desk, please make a tax deductible donation and support the NSA Student Endowment Fund.

Pacific Coast Section Report

The Pacific Coast Section of NSA met again in conjunction with the Pacific Coast Shellfish Grower's Association (PCSGA) in September 20-22, 2001 in Silverdale, Washington. The meeting was well attended by both academic researchers and the shellfish industry from the region and western Canada. Doug Thompson, NSA-PCS chair welcomed both growers and researchers for a couple of days of fruitful exchange on the issues most pressing to the shellfish industry on the West Coast. The biological themes of this year's meeting focused on issues relating to invasive species, and the role of shellfish culture in helping thwart the spread of exotic introductions, applied genetics in shellfish, estuarine ecology and shellfish restoration, and environmental effects of culturing shellfish. Michael Rice and J. Mugg's (Univ. Rhode Island) paper on "Shellfish aquaculture as a means for mitigating the effects of eutrophication in estuarine and coastal waters" and Bradley Peterson's (Florida International University) paper on "Suspension feeding bivalves as nutrient providers in seagrass ecosystems" were particularly timely components of this year's agenda from invited speakers.

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NSA 2002 Information - Mystic, CT

Registration for Mystic Meeting

This newsletter contains all of the information necessary for registering for the NSA 2002 meeting in Mystic, CT, April 14-18. Additional information can be found on the NSA web site (www.shellfish.org). In order to receive the lowest registration rate, your completed registration form must reach Ms. Joyce Wood-Martin by **March 15th**. We are planning to give tours of the University of Connecticut's new Marine Sciences complex on Sunday afternoon (April 14th). Please indicate if you are interested in a tour. Ken Chew's Chinese Banquet is still in the planning stages. Ticket information will be posted on NSA's web site as soon as details are finalized. Tickets will be available at the registration desk. Questions concerning registration should be directed to Evan Ward via E-mail (evan.ward@uconn.edu).

Hotel Reservation Information

A block of rooms has been reserved at the Hilton Mystic hotel from Sunday to Thursday at the discounted rate of US \$110.00 per night (single to quad occupancy), plus 12% sales tax. In addition, there are a limited number of rooms available at the discounted rate for those who would like to arrive Saturday (13th) or stay until Friday (19th). To reserve a room contact Leanne (group sales) and mention that you are with the National Shellfisheries Association (phone: 860-572-0731, or e-mail: lsimmons@mptn.org). Alternatively, call the national reservation office at 1-800-445-8667 and tell them you are attending the N-S-A meeting. The deadline for booking rooms at the discounted rate is **March 24th, 2002**.

Travel Arrangements

Historic Mystic is located in the southeast corner of Connecticut, on the Mystic River, about 1 mile from the Long Island Sound. The Hilton is one block from Interstate-95 and accessible by car, train, or airline.

Travel by Air - The closest air-terminal is the Groton-New London airport (GON) which is a commuter terminal serviced by US Airlines. Direct flights from Philadelphia Airport are available several times a day. When you arrive at the Groton-New London airport, contact the Yellow Cab company who will take you **free of charge** to the Hilton.

The next closest air-terminal is the Providence, RI airport (PVD). Providence is serviced by most airlines and is about 40 minutes by car from the Hilton (see direction below). Rental cars are available at the airport. In addition, we have made arrangements with Curtin Transportation company who will provide van service from Providence to the Hilton on Sunday and Thursday. Vans are scheduled to leave Providence airport around 11:00am, 1:00pm, 3:00pm, and 5:00pm. On Thursday vans will depart the Hilton at approximately 7:00 am, 9:00am, 11:00am, 1:00 am. Note that departure times may be altered depending on actual peak

arrival/departure times of our members. Cost for this service will be \$40.00 per person round trip (includes tax and gratuity). Depending on response, Curtin may also run a limited shuttle service from Providence on Saturday. To make a reservation for this service call Curtin Transportation at 860-443-1655 and indicate that you are attending the N-S-A meeting in Mystic. More information about Curtin Transportation can be found at their web site (www.curtintransportation.com).

Travel by Train - Mystic is located along Amtrak's north-east corridor. Train service to the area can be obtained from Washington (D.C.), Philadelphia, New York, and Boston. The most convenient stops are the Mystic (MYS) and the New London (NLC) train stations. Rates and schedules can be found on the Amtrak web site (<http://www.amtrak.com>). When you arrive at the station, contact the Yellow Cab company who will take you **free of charge** to the Hilton.

Travel by Car - The Hilton is easily accessible from north and south Interstate 95. Take exit 90, continue south on Route 27, left turn at second stop light (Coogan Blvd.), proceed about 200 meters and the Hilton is on the right.

Oral Presentations

Slide projectors, overhead projectors, video projectors, PC laptop, and pointers will be available in each of the meeting rooms. A slide pre-view room will be available on the first floor of the hotel (see registration desk for room number).

Those using a Power Point presentation must adhere to the following rules. Only Power Point presentations will be supported. Your presentation must be saved on a PC-formatted Zip disk (100mb); **CD-ROM and floppy disk will not be supported**. Presentations will be loaded onto the PC-computer dedicated for that room prior to your session (early morning or during lunch break). Dedicated computers will not be disconnected from the video projector under any circumstances, so please do not bring your own laptop and expect it to be interfaced with the projector. We strongly urge people to bring a back-up version of their talk on transparencies or slides in case of technical difficulties.

Poster Presentations

Posters will be displayed in the Maritime Room on the first floor. Your poster should fit into a 3 x 4 ft space. Tape, thumb tacks and/or velcro tape will be supplied along with ribbon markers to identify student posters. Posters can be displayed from Sunday afternoon to Thursday noon. Please be sure to be at your poster on Wednesday (17th) between 4:00 and 6:00 pm for the poster session.

President's Reception

The President's Reception will be held Sunday evening (14th) from 7:00 pm until 11:00 pm at the Mystic Aquarium

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**94th Annual Meeting of the National Shellfisheries Association
Hilton Mystic Hotel, Mystic, CT, April 14th - 18th 2002**

Registration Form

Complete a copy of this form for each person registering and mail with payment to:

Ms. Joyce Wood-Martin
 Department of Marine Sciences or Fax: 860-405-9153 (credit card payment only)
 University of Connecticut Attn: Ms. Joyce Wood-Martin
 1084 Shennecossett Road
 Groton, CT 06340-6097, USA

MAILING INFORMATION:

Name: _____
 Address: _____
 City: _____ State/Prov.: _____ ZIP/Post.Code: _____
 Country: _____ E-mail: _____

NAME BADGE INFORMATION (please print, max. 25 characters for each line):

Name: _____ Organization: _____

NSA 2002 REGISTRATION COSTS:

Fees include entry into technical sessions, continental breakfasts, refreshment breaks, President's reception (Sunday), student's reception (Tuesday), poster reception (Wednesday), NSA business dinner (Wednesday).

	By March 15th	After March 15th	
NSA Member	US \$215	US \$290	
Non-NSA Member	US \$280	US \$355	
NSA Student Member	US \$120	US \$175	
Daily Registration	US \$ 80	US \$ 80	
		Registration Fee =	\$ _____

NSA MEMBERSHIP:

Regular (US \$65) \$ _____
 Student (US \$35) \$ _____

ADDITIONAL TICKETS FOR ACTIVITIES:

	US\$		# tickets		
Presidents Reception (Sunday 14th, 7-11pm, Aquarium)	\$48	x	_____	=	\$ _____
Student's Reception/Auction (Tuesday 16th , 7-10pm)	\$23	x	_____	=	\$ _____
NSA Business Dinner (Wednesday 17th , 6-9pm)	\$35	x	_____	=	\$ _____

TOTAL FEE ENCLOSED (personal check, money order, VISA/Master card) \$ _____

Payment must be in US dollars; checks and money orders must be drawn on US banks.

Make checks and money orders payable to *National Shellfisheries Association*. NSA federal tax ID number is 52-1128-190.

Name on credit card: _____ Signature: _____

Credit card #: _____ Expiration date: _____ Type: VISA / MC

OTHER:

Indicate your choice of entree for the NSA Business Dinner - Roasted Salmon _____ / Stuffed Chicken _____
 Indicate if you intend to go on the tour of the U-Conn Marine Sciences Complex _____

MONDAY MORNING APRIL 15, 2002

Time	<i>Perkinsus</i> Ballroom West Chairs: Eugene Burreson & Jerome LaPeyre	The Biology and Conservation of Freshwater Mussels Ballroom Center Chair: Catherine Gatenby	East Coast Bivalve Industry Session Ballroom East Chair: Gef Flimlin
8:20	Recent trends in levels of infection of <i>Perkinsus marinus</i> in oysters from Galveston Bay, Texas: Results of the Dermowatch Monitoring Program. RAY*	Conservation activities for freshwater mussels by the United States Fish and Wildlife Service. ROGERS*, BIGGINS, AHLSTEDT	An overview of the potential for <i>Crassostrea ariakinsis</i> in the Chesapeake Bay. ALLEN*
8:40	Susceptibility of the Caribbean oyster <i>Crassostrea rhizophorae</i> to <i>Perkinsus marinus</i> . BUSHEK*, SCARPA, LARAMORE	Propagation of endangered freshwater mussels in recirculating culture systems. NEVES*, JONES, HENLEY Keynote Speaker	The new oyster wars: Policy perspectives in the introduction of <i>Crassostrea ariakinsis</i> in the Chesapeake Bay. WEBSTER*
9:00	Environmental effects on <i>Perkinsus marinus</i> infection rates, growth and survival among Dermo-disease-free juvenile oysters planted at three salinity regimes in the Patuxent River, MD. ABBE*, SLBRIGHT, MCCOLLOUGH, DUNGAN, JORDAN		Surf clam (<i>Spisula solidissima</i>) culture in southern New Jersey: Hatchery culture protocols and preliminary field grow out results. DEBROSSE*, JONES, POWELL
9:20	<i>Perkinsus marinus</i> infection rates in specific-pathogen-free juvenile oysters planted at three salinity regimes in the Patuxent River, MD. MCCOLLOUGH*, DUNGAN, JORDAN, ABBE, ALBRIGHT	Diet evaluation for the freshwater mussel <i>Elliptio complanata</i> (Bivalvia: Unionidae). HENLEY* Ψ, NEVES	Enhancing seed availability for the hard clam aquaculture industry through application of remote setting techniques. STURMER*, SUPAN, ADAMS
9:40	<i>Perkinsus</i> prevalence in oysters produced in the hatchery and planted in the field. PAYNTER*, KOLES, MERITT	Clearance rate and filtration efficiency of <i>Elliptio complanata</i> (Bivalvia: Unionidae) exposed to various laboratory conditions. GATENBY*, KREEGER, REINMILLER, NEVES	Using shellfish seed as a public enhancement tool: A review of its use and success in the northeast. WALTON*Ψ
10:00	BREAK		
10:20	“Natural Dermo resistance” in Eastern oyster stocks: Chesapeake studies and defense-related activities. STICKLER* Ψ, ENCOMIO, ALLEN, CHU, LAPEYRE	Condition index and tissue biochemistry of <i>Elliptio complanata</i> exposed to field and laboratory conditions. KREEGER*, GATENBY, RAKSANY	Stakeholders’ perceptions and challenges to participatory management: The case of the soft-shell clam, <i>Mya arenaria</i> L., industry in Maine. LUTHRA*Ψ, WALTON
10:40	Evaluation of physiological condition in Dermo resistant oysters. ENCOMIO* Ψ, STICKLER, CHU	Comparative and experimental evidence for the functional role of freshwater mussels in streams. VAUGHN*, SPOONER, MOORE, GIDO	Growth and economics of shellfish nursery culture in a commercially available floating upweller. RHEAULT*, GARDNER
11:00	Epizootic diseases in Chesapeake Bay clams. DUNGAN*, HAMILTON, MCCOLLOUGH, REECE, HUDSON	Small-scale ecological function of freshwater mussels (Family: Unionidae) in the Kiamichi River, Oklahoma. SPOONER* Ψ, VAUGHN	Optimization of tidal upweller design: Project wrap-up. MORSE*, RILEY
11:20	Utilization of molecular genetic data for detecting, identifying and describing <i>Perkinsus</i> species. REECE*	Spatial and temporal analysis of ecosystem processing of freshwater mussels in two headwater streams. CHRISTIAN* Ψ, BERG, CRUMP	Coastal states permitting procedures for deploying a tidal powered upwelling nursery system. DEVOE*, NELSON
11:40	Climate variability and Dermo disease in Chesapeake Bay. HOFFMAN*, KLINCK, POWELL, FORD, JORDAN, BURRESON	Assimilation of microzooplankton by zebra mussels: The benthic zooplankton loop. WONG*Ψ, LEVINTON, TWINING	Growth and economic advantages of distributed powered upwellers: Creating a new aquaculture niche. WARFEL*

* Denotes presenting author. Ψ Denotes that presenter is a student eligible for the Nelson Award.

Posters

Ecology of green mussels in Florida. BAKER*, BENSON

Florida clam farming. BAKER*, HEUBERGER, MONTAGUE, STURMER

Alternate classification scheme for *Homarus americanus* hemocytes. BATTISON*, HORNEY ET AL.

Atrazine and aneuploidy in the Pacific oyster. BOUILLY*, LEITAO, MCCOMBIE, LAPEGUE

Mussel population status through repeated surveys. BOURQUE*, MYRAND, ROUSSY

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MONDAY AFTERNOON APRIL 15, 2002

Time	<i>Perkinsus</i> Ballroom West Chairs: Eugene Burreson & Jerome LaPeyre	The Biology and Conservation of Freshwater Mussels Ballroom Center Chair: Catherine Gatenby	East Coast Bivalve Industry Session Ballroom East Chair: Gef Flimlin
1:20	Variability and growth of <i>Perkinsus marinus</i> and <i>Perkinsus atlanticus</i> at three temperatures. LAPEYRE*, NICKENS, CASAS, VILLALBA	Gametogenesis, spawning, brooding, and glochidial discharge in <i>Megalonaias nervosa</i> (Bivalvia:Unionidae) from the Tennessee River in Alabama. GARNER*, HAGGERTY	Embracing aquaculture BMP's: A concept whose time has come as a good neighbor or just one more thing to deal with? MACFARLANE*
1:40	Effects of oyster emersion on the growth and the metabolism of <i>Perkinsus marinus</i> . BURNETT*, MILARDO	Hierarchical analysis of MtDNA variation in <i>Amblema plicata</i> , a widespread mussel species. ELDERKIN* Ψ , BERG, METCALFE-SMITH, VAUGHN, CHRISTIAN, GUTTMAN	Relevant issues for the east coast shellfish aquaculture industry: Finding commonality to foster unity. FLIMLIN*
2:00	Transport of particles across epithelia from oyster mantle cavity: A model for <i>Perkinsus marinus</i> invasion. ALLAM*, FORD	Genetics and Molecular Biology Center Ballroom Chair: Ximing Guo A single-step multiplex PCR identification assay to distinguish megalope of <i>Callinectes sapidus</i> from <i>C. similis</i> in plankton samples. HOFFMAN* Ψ , WILBUR, POSEY, ALPHIN	General Discussion and Formation of the East Coast Shellfish Growers Association East Ballroom Chair: Gef Flimlin
2:20	Flow cytometric analysis of lectin binding to <i>in vitro</i> cultured <i>Perkinsus marinus</i> surface carbohydrates. GAUTHIER*, LAPEYRE, JENKINS	Unscrambling the lobster genome: Complex heterozygosity in the American lobster? BROCKHOUSE*, RICHARD	
2:40	Is the temperature and salinity-dependent virulence of <i>Perkinsus marinus</i> associated with increased lipid metabolism? LUND*, CHU, SOUDANT	Reversion revisited in <i>Crassostrea ariakensis</i> : Chromosome set instability in field trials across salinity regimes. ZHOU* Ψ , ALLEN	
3:00	BREAK		
3:20	Does the unique fatty acid synthetic capability of <i>Perkinsus marinus</i> have implication for virulence? CHU*, LUND, HARVEY, SOUDANT	Searching for differentially expressed genes in diploid and triploid Eastern oyster, <i>Crassostrea virginica</i> Gmelin. LANDAU* Ψ , RANGUY, GUO	General Discussion and Formation of the East Coast Shellfish Growers Association East Ballroom Chair: Gef Flimlin
3:40	Modulation of <i>Perkinsus marinus</i> functions by host-derived products. KAATTARI*, MACINTYRE, EARNHART	The successful production of tetraploid Eastern oyster, <i>Crassostrea virginica</i> Gmelin. GUO*, WANG, LANDAU, LI, DEBROSSE, BUONO	
4:00	Protease activity in the Eastern oyster <i>Crassostrea virginica</i> after experimental infection with the protozoan parasite <i>Perkinsus marinus</i> . RUIZ, GOMEZ-CHIARRI*	A basic AFLP linkage map for the Eastern oyster, <i>Crassostrea virginica</i> Gmelin. YU*, GUO	
4:20	Effect of <i>Perkinsus marinus</i> on phenoloxidase activity in bivalve hemolymph. DEATON*, JORDAN	A genetic linkage map of 100 microsatellite markers for the Pacific oyster <i>Crassostrea gigas</i> . HEDGECOCK*, HUBERT, GANG, BUCKLIN	
4:40	Evaluation of antimicrobial peptides for recombinant feed-based delivery in shellfish. DORRINGTON* Ψ , GOMEZ-CHIARRI, MARTIN	Genetic basis of the plasticity of the resource allocation in the Pacific oyster <i>Crassostrea gigas</i> . ERNANDE*, HUARE, DEGREMONT, BEDIER, BOUDRY	
5:00		Genetic distinctiveness of inshore and offshore <i>Spisula</i> clams. HARE*, PALUMBI	

* Denotes presenting author. Ψ Denotes that presenter is a student eligible for the Nelson Award.

TUESDAY MORNING APRIL 16, 2002

Time	Bivalve Disease Status and Trends Ballroom West Chairs: Lisa Ragone Calvo and Roxanna Smolowitz	Blue Mussel Biology and Culture Ballroom Center Chair: Paul D. Rawson	Shellfish Biology Ballroom East Chair: Christopher V. Davis
8:20	Monitoring bivalve health in Long Island Sound. SUNILA*	Cladistic analysis of genetic differentiation between populations of the blue mussel, <i>Mytilus trossulus</i> . RAWSON*	Influence of short term variations in food supply and critical periods on survival of <i>Crassostrea gigas</i> larvae. POWELL*, BOCHENEK, KLINCK, HOFFMAN
8:40	Prevalence and intensity of parasitic diseases in bivalves from Rhode Island waters. MAREIRO* Ψ, GOMEZ-CHIARRI	Blue mussels as model systems to investigate pallial cavity function in bivalves. WARD*, SHUMWAY, LEVINTON	Influence of environment and food supply on survival of <i>Crassostrea gigas</i> larvae: A modeling study. BOCHENEK, POWELL, KLINCK, HOFFMAN
9:00	Cape Cod bivalve diseases monitoring program, Year 1. LEAVITT*, MURPHY, BURT, CLARK, HICKEY, MOLES, SMOLOWITZ	Performance of <i>Mytilus edulis</i> and <i>M. trossulus</i> in the Gulf of St. Lawrence: A laboratory experiment. TREMBLAY*, MOREAU, LANDRY, MYRAND, COUTIER	Estimation of ingestion and biodeposition rates of the Pacific oyster, <i>Crassostrea gigas</i> , in a coastal lagoon of NW Mexico. GARCIA-ESQUIVEL*, GONZALEZ-GOMEZ, LEY-LOU
9:20	Dermowatch: A web based approach for monitoring the oyster parasite <i>Perkinsus marinus</i> . SONIAT*, KORTRIGHT, RAY	Genetic aspects of the blue mussel (<i>Mytilus edulis</i> and <i>M. trossulus</i>) in hybrid zone in Atlantic Canada. MIRANDA*Ψ, INNES, THOMPSON	Modeling the growth of the hard clam, <i>Mercenaria mercenaria</i> . KRAEUTER*, POWELL, HOFFMAN, KLINCK, GRIZZLE, BRICELJ, BUCKNER
9:40	Status and trends of Dermo and MSX in South Carolina. BUSHEK*, PORTER, COHEN, BOBO, RICHARDSON	Update on the distribution of two mussel species <i>Mytilus edulis</i> and <i>M. trossulus</i> in the Quebec maritime regions. THOMAS*, MOREAU, TREMBLAY	Growth and dispersal studies of <i>Mya arenaria</i> using a numerical flow model. CONGLETON, PEARCE, PARKER
10:00	BREAK		
10:20	A decade of disease: A report of oyster disease monitoring efforts in the lower Chesapeake Bay 1990-2000. CALVO*, BURRESON	Small scale distributions of <i>Mytilus edulis</i> and <i>M. trossulus</i> in the Baie des Chaleurs and the Gaspé Peninsula. MOREAU*Ψ, TREMBLAY, BOURGET	Population structure of the hard clam, <i>Mercenaria mercenaria</i> , in Hampton Roads, Virginia. SOUTHWORTH, HARDING, MANN
10:40	Recent expansion of juvenile oysters disease in Maine. BARBER*	A field study of settlement depths of <i>Mytilus edulis</i> and <i>M. trossulus</i> in Nova Scotia, Canada, 1998-2000. KENCHINGTON, FREEMAN*, VERCAEMER, MACDONALD	An examination of potential conflict between hard clam aquaculture and SAV in the lower Chesapeake Bay. WOODS*Ψ, MOORE, HERSHNER
11:00	The long-term role of parasitic diseases in oyster population dynamics. JORDAN*, VANISKO	Species-specific settlement patterns of blue mussels in Cobscook Bay, Maine. MCGOWAN, GORDON, RAWSON*	Burrowing-induced internal fractures and external abrasion in shells of the hard clam <i>Mercenaria mercenaria</i> from Raritan Bay, New Jersey. ALEXANDER*, BARON
11:20	Development of high disease resistance in a wild oyster population. FORD*	Behavior and growth of juvenile mussels (<i>Mytilus</i> spp.) in suspended culture stocks. SENECHAL*Ψ, GRANT	Growth characteristics of <i>Argopecten gibbus</i> juveniles reared in two suspended culture systems. COGSWELL*, SARKIS
11:40	Development and application of a PCR for <i>Mikrocytos mackini</i> , the causative agent of Denman Island Disease. CARNEGIE*, MEYER, BLACKBOURN, FORD	Mussel culture in a mixed species (<i>Mytilus edulis</i> and <i>M. trossulus</i>) zone-Some commercial implications. PENNEY*, HART, TEMPLEMAN	Effect of dietary protein/energy ratio on growth and metabolism of juvenile green abalone (<i>Haliotis fulgens</i>). GOMEZ*Ψ, VIANA, GARCIA-ESQUIVEL, SHIMADA, D'ABRAMO

* Denotes presenting author. Ψ Denotes that presenter is a student eligible for the Nelson Award.

Posters continued

Predator induced phenotypic response by *Littorina littorea*. BREVES*Ψ, TATE
Perkinsus atlanticus in vitro culture. CASAS*Ψ, VILLALBA, LAPEYRE, REECE, AZEVEDO
 Soft-shell clam culture based on transfers. CHEVARIE*, MYRAND, BOURQUE ET AL.
 Eye pathologies in amphipods from the biosphere. COELHO*, SHIELDS
 Shell repair rates in mussels. CRAMMER*Ψ, ZIMA, ALEXANDER
 Land-based *C. ariakensis* culture. ERSKINE*Ψ, ALLEN
 Decontamination of oyster primary cultures. FOO*Ψ, LAPEYRE

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TUESDAY AFTERNOON APRIL 16, 2002

Time	Bivalve Disease Status and Trends Ballroom West Chairs: Lisa Ragone Calvo and Roxanna Smolowitz	Blue Mussel Biology and Culture Ballroom Center Chair: Paul D. Rawson	Scallop biology and culture Ballroom East Chair: Kevin Stokesbury
1:20	Detection of a previously undescribed Haplosporidian-like infection of a blue mussel in Atlantic Canada. STEPHENSON*, MCGLADDERY, STOKES	Observations on growth, gametogenesis and sex ratio of triploid and diploid <i>Mytilus edulis</i> . BRAKE* Ψ , DAVIDSON, DAVIS	Investigations with triploid Atlantic sea scallops, <i>Placopecten magellanicus</i> . JACKSON*, MACDONALD, JAMES, VERCAEMER, KENCHINGTON, MALLET
1:40	Modification and field trials of a multiplex PCR for the detection of three protozoan pathogens of the Eastern oysters, <i>Crassostrea virginica</i> Gmelin 1871. RUSSELL* Ψ , FRASCA, SUNILA, FRENCH	The distribution and biology of an invasive tunicate in Prince Edward Island, Canada. DAVIDSON*, BOOTHROYD, MCNAIR, LANDRY	Impacts and control of the spionid polychaete, <i>Polydora websteri</i> , on the sea scallop, <i>Placopecten magellanicus</i> in midwater culture. ROBINSON*, MARTIN, KENNEDY
2:00	Diseases of Crustacea Ballroom West Chair: Jeff Shields Effects Of Parasites On Behavior Of Grass Shrimp, <i>Palaemonetes pugio</i> . GLOVER*, BERGEY, WEIS	Nutrient uptake and release from fouling organisms associated with cultured mussels in Tracadie Bay, PEI. LEBLANC* Ψ , MIRON, LANDRY	Postlarval development of the gills and implications for feeding in the sea scallop, <i>Placopecten magellanicus</i> . BRICELJ*, VENIOT, BARRÉ, BENINGER
2:20	Parasites In <i>Diporeia</i> Spp. Amphipods From Lakes Michigan And Huron. MESSICK*, NALEPA	Harmful Algal Blooms Chair: Sandra Shumway History, some recent HAB events, and their impacts on shellfish and finfish in Washington State. HORNER*	The effects of stocking density in pearl nets on survival, growth and reproductive potential of the bay scallop, <i>Argopecten irradians irradians</i> . DAVIDSON*
2:40	A Pathogenic Herpes-Like Virus From The Spiny Lobster, <i>Panulirus Argus</i> . SHIELDS*, BEHRINGER, BUTLER		A comparison of microalgal diets for enhanced production of <i>Placopecten magellanicus</i> postlarvae. MILKE* Ψ , BRICELJ, PARRISH
3:00	BREAK		
3:20	Pathological Alterations In The Eyes Of The American Lobster, <i>Homarus americanus</i> , Infected With <i>Paramoeba</i> Sp. SHIELDS*	Effects of clay, used to control harmful algal blooms, on juvenile hard clams <i>Mercenaria mercenaria</i> . ARCHAMBAULT* Ψ , BRICELJ, GRANT, ANDERSON	Developing a coastal Maine sea scallop enhancement program. FEINDEL*, SCHICK
3:40	Cytocentrifuge Preparations: An Alternate Method To Examine The Hemocytes Of The American Lobster <i>Homarus americanus</i> . HORNEY, BATTISON [†] Ψ , MACKENZIE	Detrimental effects of a recent <i>Prymnesium</i> isolate from Boothbay Harbor, Maine (USA) upon juvenile bay scallops, <i>Argopecten irradians</i> . WIKFORS*, SMOLOWITZ, ALIX, WALLACE, HEGARET.	Development of a stock assessment program for the weathervane scallops in Alaska. ROSENKRANZ*, PENGILLY
4:00	Field Observations On The Development And Progress Of A Shell Disease Episode For American Lobster In Rhode Island: 1995-2001. CASTRO*, ANGELL	Effects of the toxic dinoflagellate, <i>Kernia brevis</i> , on larval mortality and juvenile feeding behavior in the bay scallop, <i>Argopecten irradians</i> . LEVERONE* Ψ , BLAKE	Examination of the sea scallop <i>Placopecten magellanicus</i> aggregations using a video survey in closed areas of Georges Bank. STOKESBURY*, HARRIS
4:20	Ecological Ramifications Of Disease In The Caribbean Spiny Lobster, <i>Panulirus argus</i> . BEHRINGER* Ψ , BUTLER, SHIELDS	TBA, THESSSEN*	Growth and movement of sea scallops in the southern part of the great south channel on Georges Bank: A tagging study. HARRIS* Ψ , STOKESBURY
4:40			Biochemical indicator of giant scallop <i>Placopecten magellanicus</i> quality: Larval growth, competency, and settlement. PERNET* Ψ , TRAMBLAY, BOURGET
5:00			

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WEDNESDAY MORNING APRIL 17, 2002

Time	Parasite and Host Defenses Ballroom West Chair: Robert Anderson	Sea Urchin Biology, Pathology and Culture Ballroom Center Chair: Bruce Barber	Oyster Reefs and Restoration Ballroom East Chairs: Aswani Volety and William Fisher	Shellfish Pathology Workshop: Room: TBA Chair: Inke Sunila
8:20	Mucoid secretions protect QPX from antimicrobial agents. ANDERSON*, KRAUS, MCGLADDERY, SMOLOWITZ	Importance of dietary minerals and pigments for increasing somatic growth of juvenile green sea urchins (<i>Strongylocentrotus drobachiensis</i>). KENNEDY* Ψ , ROBINSON, CASTELL, PARSONS	A comparison of acoustic techniques, videography, and quadrat sampling for characterizing subtidal oyster reefs. GRIZZLE*, WARD, ADAMS, DIJKSTRA, NELSON	Hands-on session where participants will bring histological slides for examination and general discussion
8:40	The antioxidant system of the protistan parasite, <i>Perkinsus marinus</i> . SCHOTT*, ROBELDO, PECHER, OKAFOR, VASTA	Growth response and acclimation of green sea urchins to fluctuating salinity. RUSSELL*	Modeling the influence of filtration by oyster stocks on turbidity and seagrass growth. NEWELL*, KOCH, WOOD, GRIZZLE, HOOD	
9:00	Improvement by probiotics of <i>Pecten maximus</i> larvae defense capacity, measured by chemiluminescence. LAMBERT*, PAILLARD, NICOLAS	Photoperiod, urchin "eyes" and gametogenesis. MOODY*, WALKER	Size and depth dependent larval mortality: A modeling study. DEKHENIEKS* Ψ , HOFFMAN, KLINCK, POWELL	
9:20	Purification and characterization of lysozyme from plasma of Eastern oysters (<i>Crassostrea virginica</i>). XUE*, LAPEYRE, VOLETY, CHU	Abiotic and biotic threats to sea urchin health: What price culture? PETERS*	Recruitment of the oyster <i>Crassostrea virginica</i> on intertidal reefs in areas with intense boating activity in the Indian River Lagoon, Florida. WALL* Ψ , WALTERS, JOHNSON, MARTINEZ, GRIZZLE	
9:40	Purification of a novel antimicrobial peptide from the Eastern oyster (<i>Crassostrea virginica</i>). MOUNTZ* Ψ , ANDERSON	Sea urchin disease concerns in Atlantic Canada. MACCALLUM*, ROBINSON, MCGLADDERY, STEPHENSON	Evaluating the contribution of commercial oyster aquaculture to recruitment. SACKETT* Ψ , PETERSON, WILBUR, SWARTZENBERG	
10:00	BREAK			
10:20	Effect of dietary fatty acid composition on lipid profiles of haemocyte membranes in oysters and clams and its impact on immune functions. DELAPORTE* Ψ , MOAL, SAMAIN, SOUDANT, CHOQUET, ET AL.	Urchin health issues in Maine. WATERSTRAT*, CREASER	A characterization of ideal habitat structure for the striped blenny <i>Chasmodes bosquianus</i> . FLYNN* Ψ , PAYNTER	Hands-on session where participants will bring histological slides for examination and general discussion
10:40	The effect of pH on the killing activity of hemocytes in the Pacific oyster, <i>Crassostrea gigas</i> . ALLEN* Ψ , BURNETT	Sea urchin mortality in Maine, initial case report and overview. ELSTON*	Use and value of oyster reefs among recreational fishermen in Louisiana. ISAACS*, KEITHLY, DIANGNE	

Wednesday morning program continued on page 10.

Wednesday morning continued

11:00	Activation of oyster defenses by environmental contaminants. FISHER*, OLIVER	Summary and discussion. BARBER*	Prevalence of enteric microorganisms in the Eastern oyster (<i>Crassostrea virginica</i>) and their overlying waters at representative sites of an oyster gardening program in Mobile Bay, Alabama. HAMILTON*, SWANN, BURKHARDT
11:20	Repeated hemolymph sampling of individual clams: What does it tell us about sampling procedures? PAILLARD*, FORD		The effect of stocking density on benthic community development and shell height in the Eastern oyster, <i>Crassostrea virginica</i> . HARRIS* Ψ , PAYNTER
11:40	Relationships between summer mortalities and defense mechanisms in families of <i>Crassostrea gigas</i> reared in different environmental conditions. SOUDANT*, LAMBERT, CHOQUET, FORD, PAILLARD, ET AL.		Relaying as a method to remove hooked mussels from oysters prior to reharvest for sale. MELANCON*, ASRABADI

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Posters continued

Community-based shellfish reef construction. GREENE*, GRIZZLE, BURDICK, WARD, REID
Oysters as indicators of estuarine water quality. GRINDBERG* Ψ , RASNAKE, SAVARESE, VOLETY
Changes in oyster reefs and boating activities. GRIZZLE*, ADAMS, WALTERS
Oyster reef restoration using CROSBreed. GRIZZLE*, GREENE, JONES, LUKENBACH, MANN
Changes in Chesapeake Bay oyster reef morphology. HARGIS, WOODS* Ψ , ARENSEN ET AL.
Chesapeake Bay oyster reef morphology: 1871-1873. HARGIS, WOODS* Ψ , ARENSEN, MOUNTZ, BERMAN
Sex steroids and vitellogenin in freshwater mussels. KERNAGHAN*, MONCK, WIESER, GROSS
Composition of cardiolipin of some bivalves. KRAFFE* Ψ , SOUDANT, MARTY, KERVAREC, GUENOT
Lobster hemocyte-mediated responses. KRAUS*, BEAVEN, ANDERSON
Cell proliferation in oyster tissues. NGUYEN, LAPEYRE*, TIERSCH
Freshet effect on *P. marinus* in Eastern oysters. LAPEYRE*, NICKENS, LAPEYRE
Effects of V-notching on ovigerous lobsters. LAVALLEE*, RAINNIE
A linkage map for the Pacific oyster. LI* Ψ , GUO
Gonadal maturation in triploid scallops. LOHRMANN*, VON BRAND, GALLARDO
Detection of white spot syndrome virus. LUIS* Ψ , PILAR, LEOBARDO
Emergent neoplasia diseases in soft-shell clams in Atlantic Canada. MACCALLUM*, DAVIDSON ET AL.
Identity of mollusks production declines. MACKENZIE*
PCR-based assay for JOD-associated Roseobacter. MALOY* Ψ , BOETTCHER, BARBER
Structure and function of a created reef. MEDERMOTT*, BURDICK, GRIZZLE GREENE
Hooked mussel removal from oysters. MELANCON*, DIAZ, ASRABADI
Molecular characterization of a parasitic lobster amoeba. MULLEN* Ψ , FRASCA
Zoosporulation of *Perkinsus marinus*. NICKENS* Ψ , LAPEYRE, CASAS
Qx disease in Sydney rock oysters. PETERS* Ψ , RAFTOS
Intertidal whelk population biology. POWER*, SWEENEY-REEVES, RECICAR ET AL.
Rapid stress indicators for lobster. PRINCE, BAYER*, CONGLETON, COLBY ET AL.
Hematodinium transmission into blue crabs. SHEPPARD* Ψ , RAMBOW, FRISCHER, LEE
The black spot disease-limb loss relationship. TALLACK* Ψ
Oyster grazing on toxic and non-toxic diatoms. THESSSEN* Ψ , DORTCH, DOUCETTE
Historic oyster dredge and patent tong surveys. WANKO* Ψ , CHRISTMAN, PAYNTER, JORDAN
Hematodinium infection in three crab species. WALKER*, SHEPPARD, LEE, FRISCHER
Impact of boating activity on oyster reefs. WALTERS*, JOHNSON, WALL, MARTINEZ, GRIZZLE
Monitoring mussel shell gape size. WATSON*, JURY, WISHINSKI, O'GRADY, GOLET ET AL.
In vitro effects of heavy metals and atrazine on Pacific oyster haemocytes. GAGNAIRE*, THOMAS-GUYON

WEDNESDAY AFTERNOON APRIL 17, 2002

Time	Parasite and Host Defenses Ballroom West Chair: Robert Anderson	Lobster Biology and Fisheries Ballroom Center Chair: Richard French	Offshore Fisheries Ballroom East Chair: James Weinberg
1:20	Temperature effect on immunocompetence of clam <i>R. philippinarum</i> and on <i>V. tapetis</i> cytotoxicity. PAILLARD*, CHOQUET, LAMBERT, SOUDANT, REID, BIRBECK	The effects of habitat addition and stock enhancement for American lobsters, <i>Homarus americanus</i> on artificial reefs in Rhode Island. CASTRO*, COBB, WAHLE, CATENA	Integrating vessel tracking, catch data, and depletion models to estimate commercial scallop dredge efficiency. GEDAMKE* Ψ , DUPAUL
1:40	Development of a flow cytometric measurement of oxidative metabolism product formation by <i>Crassostrea gigas</i> hemocytes and application to evaluate pathogenic <i>Vibrio</i> inhibiting capacity. LAMBERT, SOUDANT, CHOQUET, PAILLARD	What can data from industry conducted tag-recapture programs tell us? A study of the American lobster (<i>Homarus americanus</i>). SOMERS*, CASTRO, ANGELL	Fleet dynamics of the Atlantic sea scallop fishery. RAGO*, HART
2:00	Measurement of <i>Vibrio tapetis</i> cytotoxic activity on <i>Ruditapes philippinarum</i> hemocytes by flow cytometry. CHOQUET* Ψ , SOUDANT, LAMBERT, PAILLARD, NICOLAS	Environmental monitors on lobster traps. MANNING*, SPINAZZOLA, FARREY	Rebuilding sea scallop (<i>Placopecten magellanicus</i>) stocks using area closures and rotational fishing. HART*, RAGO
2:20	Seasonal and culture site effects on the physiological, immunological and brown ring disease status of the manila clam <i>Ruditapes philippinarum</i> . SOUDANT*, CHOQUET, LAMBERT, MARHIC, PAILLARD	The effect of temperature on sexual maturity in the female lobster, <i>Homarus americanus</i> . LITTLE* Ψ , WATSON, SPINAZZOLA	Deep sea red crabs off southern New England: Has there been a fishery impact on the population? WEINBERG*, KEITH
2:40	Chemotaxis of hemocytes of the hard clam, <i>Mercenaria mercenaria</i> , to quahog parasite unknown (QPX) and other microorganisms. DECKER* Ψ , ANDERSON	Lesions associated with recent epizootic shell disease in <i>Homarus americanus</i> on the northeast coast. SMOLOWITZ*, CHRISOSEDOV	Recruitment dynamics of northern shrimp (<i>Pandalus borealis</i>) in the Gulf of Maine. RICHARDS*, FOGARTY, MOUNTAIN, TEICHBERG
3:00		Shell disease prevalence and severity in offshore American lobster populations. KAPAREIKO*, ROBOHM, ZISKOWSKI, SENNEFELDER, CLABRESE	The use of a 4-inch (101mm) sea scallop (<i>Placopecten magellanicus</i>) ring dredges in the context of an area management strategy. GOFF* Ψ , DUPAUL, RUDDERS
3:20		The role of <i>Vibrio fluvialis</i> and other bacterial species in lobster mortalities in Maine. GIRAY*, BOUCHARD	Population structure of the Indian squid, <i>Loligo duvaucelii</i> Orbigny, 1848, in Iranian waters of Oman Sea. RAJABIPOUR*
3:40		Characterization of microbial assemblages involved in the development of shell disease in the American lobster, <i>Homarus americanus</i> . CHRISOSEDOV*, MIRASOL, SMOLOWITZ	
4:00	POSTER SESSION		
6:00	BUSINESS MEETING DINNER		

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2002 NSA Executive Committee Election

NSA Past-President Evan Ward and the Elections Committee have put together the 2002 slate of candidates for the NSA Executive Committee. The candidate biographies and ballots will be mailed by January 31, 2002. Ballots must be received by April 10, 2002 and the 2002-2003 Executive Committee members will be announced at the Annual Meeting in Mystic, CT, April 14-18.

A brief note from your Newsletter Editor...

As I am putting this issue of the *NSA Quarterly Newsletter* together, there is raging snow storm pounding the coast of Maine. The power is out and I'm typing like mad by candlelight, just hoping the laptop batteries will hold out a little longer...Can't wait to see everyone at NSA-2002 in Mystic!

THURSDAY MORNING APRIL 18, 2002

Time	Diseases of Shellfish : Contributed Session Ballroom West Chair: James Moore	Bivalve Habitat Suitability and the Role of Bivalves in Ecosystems Ballroom Center Chairs: William Fisher and Aswani Voley
8:20	A specific pathogen free culture system for <i>C. gigas</i> larvae and spat. MATSON*, LANGDON	Oyster habitat suitability as a component of resource management. FISHER*
8:40	Characterization of gene expression in response to <i>Perkinsus marinus</i> and <i>Haplosporidium nelsoni</i> infections in the Eastern and Pacific oysters. TANGUY*, FORD, GUO	A modified habitat suitability index for the Eastern oyster, <i>Crassostrea virginica</i> . SONIAT*
9:00	Mortalities of cultured abalone, <i>Haliotis iris</i> , infected by a novel haplosporidian. DIGGLES, HINE, WEBB, MAAS, NICHOL, WAKEFIELD, FRIEDMAN, COCHENNEC-LAUREAU, REECE, STOKES*	The influence of reef architecture and scale on success of oyster reef restoration. LUKENBACH*, ROSS, BIRCH
9:20	<i>Vibrio</i> associated with juvenile oyster during summer mortality in France. NICOLAS*, GARNIER, LEROUX	Effects of freshwater releases and season on oysters <i>Crassostrea virginica</i> in Claooshatchee estuary, Florida. VOLETY*, TOLLEY, WINSTEAD
9:40	Environmental detection of the Rickettsiales-like prokaryote causing withering syndrome in abalone. MOORE*, FRIEDMAN	Parasitic and symbiotic fauna inhabiting oysters (<i>Crassostrea virginica</i>) and mud crabs (<i>Panopeus herbstii</i>) sampled from the Claooshatchee estuary, Florida. WINSTEAD*, VOLETY, TOLLEY
10:00	BREAK	
10:20	Intramitochondrial crystals within the haemocytes of mussels (<i>Mytilus edulis</i>) experiencing unexplained mortalities. MEYER*, BOWER	Use of oyster habitat by reef-resident fishes and decapod crustaceans in the Claooshatchee estuary, Florida. TOLLEY*, VOLETY, LINDLAND, WINSTEAD
10:40	Low salinity tolerance in manila clams <i>Venerupis philippinarum</i> . ELSTON*, CHENEY, MACDONALD, SUHRBIER	Effects of <i>Crassostrea virginica</i> populations on sedimentation, phytoplankton species composition and ammonia cycling in experimental mesocosms. PIETROS* Ψ , RICE
11:00	Further molecular characterization of <i>Perkinsus andrewsi</i> and related isolates. PECHER* Ψ , ROBLEDO, COSS, VASTA	A simplified seston uptake model for bivalves: Preliminary field tests. GRIZZLE*, GREENE, LUKENBACH
11:20	Gene discovery in <i>Perkinsus marinus</i> using expression sequence tags (EST). ROBLEDO*, SCHOTT, MARSH, VASTA	How community-based oyster restoration can enhance research efforts: Examples from South Carolina and Alabama. COEN*, WALLACE, HADLEY
11:40	<i>In vitro</i> culture of <i>Perkinsus atlanticus</i> from clams <i>Tapes decussates</i> : Characterization of the rRNA gene. ROBLEDO*, NUNES, CANCELA, VASTA	Continuous monitoring of pumping and valve gape in the oysters <i>Crassostrea virginica</i> : a tool to measure response to environmental parameters. FRANK* Ψ , WARD
12:00	The Nramp gene and competition for available iron between <i>Crassostrea virginica</i> and <i>Perkinsus marinus</i> . ROBLEDO*, VASTA	

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Pacific Coast Section Report continued from page 2

Seven student papers were presented, most were of very high quality this year. The PCSGA and NSA-PCS both made presentations for award winning papers. The NSA award for best student paper went to Hakan Calik, a graduate student from Oregon State University for his presentation entitled "Effect of high pressure processing on *Vibrio parahaemolyticus* strains in pure culture and Pacific oysters". The PCSGA made two awards for papers best presenting applied research to benefit the shellfish industry. Robyn Estes, a graduate student at the University of Washington, received the Best Paper award for her paper entitled, "Characterization of pathogenic and non-pathogenic bacteria associated with bivalve larvae and shellfish hatcheries". Elyse Cronin, an undergraduate from the University of Washington, received the runner-up award from the PCSGA on her paper (co-authored by Brent Vadopalas) entitled

"Age determination on geoduck clams, *Panopea abrupta*, utilizing patterns in shell annuli".

The annual NSA-PCS business meeting was held and new officers elected for the coming year. Graham Gillespie (Pacific Biological Station, Nanaimo, BC) was elected Chair and Jennifer Whitney (WA Department of Fish and Wildlife) was elected Vice-Chair. Don Velasquez was elected Secretary/Treasurer. The slate was rounded out with four Members-at-Large elected to the board. These include Hal Beattie, Ray RaLonde, Kelly Toy and Kurt Johnson. This conference again provided a means for the shellfish growers to maintain a close connection with academic and industry research that serves to help maintain a still thriving west coast industry.

Joith Davis

NSA 2002 Information continued from pg. 3

and Institute for Exploration (one of the co-sponsors of our meeting). The Aquarium is a 5 min walk from the Hilton. The reception will include hors d'oeuvres, cocktails, and private access to all of the exhibits in the Aquarium. Seafood for the event is being donated by several local growers, including oysters for a raw bar. This is a wonderful venue for the start of the meeting and I hope everyone will be able to attend. Extra tickets for spouses can be purchased on the registration form or at the registration desk on Sunday (supply permitting). More information about the Mystic Aquarium and Institute for Exploration can be obtained from their web site (www.mysticaquarium.org).

Ken Chew's Chinese Banquet

The Chinese Banquet is planned for Monday evening (15th). More information about the banquet will be posted on the NSA web site as soon as details are finalized. Tickets will be available at the registration desk.

Tours and Local Attractions

Tours of the University of Connecticut's new Marine Sciences complex will leave from the lobby of the Hilton at 1:00 pm on Sunday (14th). The complex includes a new Project Oceanology building (education/outreach program), the Rankin flowing sea water laboratory, and the new 140,000 square foot Marine Programs building. The Marine Programs building houses the Department of Marine Sciences, the Marine Sciences and Technology Center, National Undersea Research Center, CT Sea Grant, Long Island Sound Resource Center, and several industrial affiliates. If time permits, we will also tour the historic Branford House (mansion). Information about the Marine Sciences program can be found on their web site (www.marinesciences.uconn.edu).

The Hilton is close to many popular attractions. Within walking distance of the hotel is the Mystic Aquarium and Institute for Exploration (one of the co-sponsors of our meeting), Olde Mystic Village (shops, boutiques), Mystic Seaport Museum, and Mystic Factory Outlets. For you gambling aficionados, the Hilton is ten miles from Foxwoods and the Mohegan Sun casinos. Foxwoods has the distinction of being the largest gambling casino in the Western Hemisphere. As you can see, there are plenty of things for spouses and kids to do while you are attending talks, poster sessions, and other meeting events. More information about the area and its many attractions can be found on the Mystic web site (www.mysticmore.com).

Items Wanted for Student Auction

If you have something shellfish related to donate to the auction, contact Sandy Shumway or just bring it along to Mystic (contact information on back page).

East Coast Shellfish Growers' Association?

Last February at an informal roundtable discussion at the Milford Aquaculture Seminar, Karen Rivara of AEROS Cultured Oyster Company spoke about a small group of growers on Long Island who had organized to address a politically charged leasing issue. The growers quickly came to realize that someone's full time attention was required and no one was in the position to volunteer the time away from their farms to get the job done. She expressed the need for an association with staff to deal with issues largely in the legal/political realm. Karen's report sparked a lively discussion confirming the need for an East Coast organization that could provide a clear voice for industry concerns.

Since Milford, the industry dialogue has continued and plans for creation of the East Coast association are underway. This year's NSA meeting on the East Coast a couple of months after the Milford Seminar offers a unique opportunity to launch the association. Gef Flimlin of Rutgers Cooperative Extension will be mailing a letter to East Coast industry people informing them of the movement to create an organization and soliciting their participation in the organizational forums planned for both Milford and Mystic. Karen Rivara will present a status report of organizational efforts at the upcoming Milford meeting and Walt Blogoslawski has agreed to dedicate the Tuesday night Roundtable to further ECSGA discussion. Efforts are underway to invite key people to an industry session at NSA with the intent of convening the first organizational meeting of the ECSGA. Comments or questions regarding the formation of the association are welcome and can be directed to Rick Karney mvs@capecod.net (508) 693-0391, Karen Rivara keeno@juno.com (631) 765-1808 or Gef Flimlin flimlin@AESOP.RUTGERS.EDU (732) 349-1152.

E Pluribus Mollusca Unum!

Recruits Corner

The time is drawing near for NSA 2002. Even if you are not going to be presenting this year, it would be well worth it to come to Mystic for the meeting. If you have talked to any of the students who have attended past meetings, I am sure they have all told you what a blast they can be. If anybody is coming up short for a room and is in need of somebody to split the cost, please feel free to send me your contact information and I will get you in touch with others in your situation. Have a great rest of the semester and I hope to see all of you in Mystic.

Cheers,

Membership Report

Thanks to the hard work by several folks, NSA has recorded strong growth in new membership. At the present time, Sandy Shumway is leading the contest in recruiting maximum number of new members. Thanks Sandy! To date, NSA currently has 938 members from over 40 countries (789 regular members and 149 student members), an increase from 909 members (775 regular, 134 student) last year. Of the 939 members, 228 have not paid their 2001 dues yet. 1645 members have been dropped over the past few years for non-payment of dues, and 48 members have retired. I hope that the NSA membership will soon cross the 1000 member mark. I urge the current members that have not paid their 2001 dues to please do so quickly. As you all know, every year, all members receive the *NSA Quarterly Newsletter* and two issues of peer-reviewed journal, *Journal of Shellfish Research* (JSR). Printing and mailing of both these publications is an expensive endeavor and increased membership goes a long way in keeping NSA financially sound.

I would like to thank Nancy Lewis (book keeper) for her excellent work in updating and maintaining current membership information.

Aswani Voley
Co-Chair, Membership Committee.

Industry Update

In an effort to generate better understanding of the shellfish industry here in the United States, and hopefully foster better linkages with the NSA research community, the NSA Industry Committee expanded in 2001 to include Co-Chairs (Rick Karney, Marthas Vinyard Shellfish Group and Joth Davis, Taylor Shellfish Farms) that hopefully can work to better communicate information and the specific concerns of the industry on a national basis. In discussion with NSA members over the last few years who work within the shellfish industry, it was felt that an informal committee composed of members local to meeting sites could work to increase industry participation at the annual meetings by proposing workshops and industry sessions that focus on regional issues. This has been the case in recent years, at least with specific industry sessions planned and coordinated by members close to the meeting site. This will again be the case this year with Gef Flimlin's organization of an industry session in Mystic. The planned discussion of an East Coast shellfish grower's association by Rick and Gef is just a great example of how NSA can provide a forum for this kind of regional effort.

In discussion with the NSA newsletter editor (who happens to be my brother), we came up with the idea of making the

Industry Update a more regular feature of the quarterly newsletter by regionalizing the coverage. I will be reporting on the major issues facing the West Coast industry for this issue. Rick will cover the northeast coast next issue. We need coverage for the southeast and Gulf regions to round out the national picture. Anyone interested? In any case, I hope that this approach will make the newsletter more informative to membership in the future.

West Coast Update

In thinking about the west coast shellfish industry and how it has changed over the last decade, I think the primary issues we face today are focused on a myriad of regulatory concerns over the way farms are operated, increasing concerns over harmful algal blooms, *Vibrio parahaemolyticus* and encroaching pollution affecting water quality. On the regulatory front, the issues facing the industry seemingly increase on a daily basis. I can not over-emphasize the positive role that the Pacific Coast Shellfish Grower's Association (PCSGA) has had on alerting membership to concerns and actively working on solutions. Current regulatory concerns over burrowing shrimp control using the pesticide Carbaryl are plaguing the industry in southwest Washington estuaries. The practice of aerial spraying of up to 600 acres annually to rid oyster ground of two species of burrowing shrimp may come to an end as efforts are being made to develop a more comprehensive integrated pest management program for control of shrimp. The bottom line for the growers is that unless something works to remove the shrimp from grow out beds, there is little hope for continued oyster productivity from the affected ground. Efforts to tackle this issue using risk management approach may be useful as the benefits associated with healthy oyster culture (increased biodiversity on the beds and greater biofiltration capacity for the bay) may outweigh the shorter term negative consequences of spraying.

In the Puget Sound region, shellfish growers are facing increased regulatory scrutiny from State agencies over the use of privately owned tidelands for shellfish culture other than oysters. New Manila clam and geoduck culture on ground historically dedicated to oysters has drawn the attention of State agencies concerned over non-conforming land use. Other regulatory issues facing the industry on the west coast, as well as nationally, concern the production of pseudofeces and feces from farms and nursery operations adding to the load of organic "pollution" contributed to natural water bodies. This may trigger a regulation for shellfarm operations to come under the purview of the EPA and necessitate a NPDES permit for operating a shellfish farm. I think due to space constraints and in the spirit of cooperation and understanding post 9-11, I will save a rant on this issue for another time.

Joth Davis

Upcoming Meetings

Oldways Water Farming Conference: February 12-14, 2002, Renaissance Harborplace Hotel, Baltimore, MD. For program information, contact Annie Bonney at phone (617) 421-5500 or email annie@oldwayspt.org.

East Coast Interstate Shellfish Seed Transport Workshop: February 21-22, 2002, South Carolina Marine Resources Center, 217 Ft. Johnson Road, Charleston, SC. For more information, contact Bill Anderson at phone 843-762-5089 or email Andersonb@cofc.edu.

22nd Milford Aquaculture Seminar: February 25-27, 2002, Quality Inn Conference Center, New Haven CT. For program information, contact Walter Blogoslawski at phone (203) 579-7035, email walter.blogoslawski@noaa.gov or visit www.mi.nmfs.gov/. Final abstracts are due January 4, 2002.

SEERS 2002 Spring Meeting: February 28 - March 2, 2002 Savannah, GA. For more information, contact the Southeastern Estuarine Research Society at <http://www.flmnh.ufl.edu/seers/>.

National Shellfisheries Association 94th Annual Meeting: April 14-18, 2002, Hilton Mystic Hotel, Mystic, CT. For program information contact Carolyn Friedman or local arrangements contact Evan Ward (addresses on back page).

World Aquaculture 2002: April 23-27, 2002, Beijing Convention Center, Beijing, China. Annual meeting of the World Aquaculture Society. For more information visit www.was.org, or contact Director of Conferences and Sales: John Cooksey, phone 760-432-4270, fax 760-432-4275 or email worldaqua@aol.com.

The 4th International Conference on Molluscan Shellfish Safety: June 4 to 8, 2002, Santiago de Compostela (Galicia, Spain). The 4th ICMSS will be hosted by the Centro de Investigacións Mariñas (CIMA) and the Centro de Control da Calidade do Medio Mariño (CCCMM), both depending on the Consellería de Pesca, Marisqueo e Acuicultura of the Xunta de Galicia. Oral presentations and posters will be presented dealing with the following topics: 1. Microbiological contamination 2. Chemical contamination and bioaccumulation 3. Harmful and toxic algal events 4. Shellfish contamination by marine biotoxins 5. Depuration 6. Management and mitigation 7. Water quality at harvesting sites 8. Public health, epidemiology and toxicology 9. Monitoring, quality assurance programmes and regulatory controls 10. Allergies associated with shellfish consumption. Proceedings will be published in the *Journal of Shellfish Research*. The Conference venue is the Faculty of Medicine (University of Santiago de Compostela), located in the

historic mediaeval city of Santiago de Compostela, an important pilgrimage centre, designated as Patrimony of Humanity by UNESCO. Its International Airport is located less than 15 minutes drive from downtown. The city is close to the Galician Rías Baixas, one of the world's largest mussel production areas. For information, contact: CONFERENCE SECRETARIAT ICMSS Centro de Investigacións Mariñas Aptdo. 13 36620 Vilanova de Arousa. Pontevedra Spain Phone: 34 986500155 Fax: 34 986506788 E-mail: icmss@cimacoron.org or Web site www.atlanticocongresos.com/moluscos/index.html.

American Society of Limnology and Oceanography 2002 Summer Meeting: June 10-14, 2002, Victoria Conference Centre, Victoria, BC, Canada. The theme for the meeting is *Inter-disciplinary Linkages in Aquatic Sciences and Beyond*. For more information, contact Helen Schneider Lemay at phone 254-399-9635, email business@aslo.org or visit <http://www.aslo.org/victoria2002>.

American Malacological Society 68th Annual Meeting: August 3-7, 2002, Lightsey Conference Center, College of Charleston, Charleston, South Carolina. For more information contact Rob Dillon at phone 843-953-8087, email dillonr@cofc.edu or visit: <http://www.cofc.edu/~dillonr/AM52002.htm>.

Fourth International Symposium on Aquatic Animal Health: September 2-6, 2002, Sheraton New Orleans Hotel, New Orleans, LA. For information, contact ISAAH2002 at Department of Pathobiological Sciences, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA, 70803, fax 225-578-9701, email ISAAH2002@vetmed.lsu.edu or visit web site www.vetmed.lsu.edu/isaah2002.htm.

Aquaculture Canada '02: September 17-20, 2002, Delta Prince Edward Hotel, Charlottetown, PEI Canada. The 19th annual meeting of the Aquaculture Association of Canada. For more information contact Cyr Couturier at phone 709-778-0609, fax 709-778-0535, email cyr@mi.mun.ca or visit www.mi.mun.ca/mi/aac.

National Shellfisheries Association 95th Annual Meeting: April 13-17, 2003, Doubletree Hotel, New Orleans, LA.

14th International Pectinid Workshop: April 23-29, 2003, Hilton Hotel, St. Petersburg, Florida USA. For information visit workshop web site at <http://conference.ifas.ufl.edu/scallops/> or contact Beth Miller-Tipton, Conference Coordinator, Phone: 352-392-5930, fax 352-392-9734 or email: bmiller-tipton@mail.ifas.ufl.edu.

If you know of any meetings, conferences or workshops that might be of interest to NSA members, please contact Chris Davis. (see back page for contact information).

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