

# National Shellfisheries Association Quarterly Newsletter



President Dr. Robert E. Malouf  
President-Elect Dr. John Manzi  
Vice President Dr. Roger Mann  
Secretary-Treasurer Dr. Scott Siddall

Dr. Susan E. Ford, Newsletter Editor  
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Port Norris, New Jersey 08349

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OCTOBER 1986

Port Norris, New Jersey

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## 78th ANNUAL CONVENTION

The Pacific Coast Section of NSA and the Pacific Coast Oyster Grower's Association hosted the 78th Annual Joint Meeting of NSA and SINA in Seattle, Washington on June 22-26. Two hundred and eighty-nine people, including 166 NSA members attended the conference, which was held at the Crowne Plaza Holiday Inn. Participation in the technical sessions was among the best in recent years. According to Program Chairman John Manzi (South Carolina Marine Resources Research Institute), concurrent sessions were required to handle nearly 100 presentations. Contributed papers came from 17 states, Canada, Australia, Panama, and Puerto Rico. Two special symposia covered recruitment of commercially important decapods and depuration in North America. Social highlights of the meeting included a visit to the Coast Oyster Company Hatchery and a multi-course Chinese dinner organized by Ken Chew and attended by a large fraction of the conventioners.

The Executive Committee of NSA passed a resolution dedicating this 78th Meeting of NSA to the memory and work of the late Eugene Petrovits.

The Thurlow C. Nelson Award for the best paper by a young investigator was presented to Stephen T. Tettlebach of the Marine Research Laboratory, University of Connecticut for his paper entitled "Crabs vs. Bay Scallops: Effects of predator and prey size on feeding rates and predatory behavior." Honorable mention went to Jonathan Davis and Sandra Downing, both of the School of Fisheries, University of Washington, for their work on triploidy in oysters. Congratulations to all three.

## JOURNAL OF SHELLFISH RESEARCH

Volumes 4 (1) and 4 (2) of JSR were mailed in early September and should be in members hands by now. If you have not received your copies, please contact Secretary/Treasurer Scott Siddall (Marine Sciences Research Center, SUNY, Stony Brook, NY 11794; (516) 246-8678). Volume 5 (1) is at the printers and should be out before the end of the year.

A major topic of discussion at both the NSA EXCOM and Business Meetings was the status of JSR. Retiring Editor Roger Mann reported at the Business Meeting held Tuesday June 24, that the *Journal* was two years behind its publication schedule. He said that every effort should be made over the coming year to put the *Journal* back on schedule and that if this could not be done, the Society should cease trying to publish it. Business Manager, Ed Cake, accepted much of the responsibility for the delays, which have been aggravated by illness of the typesetter and a hurricane that disrupted work at the Gulf Coast Research Laboratory where Ed is located.

At the Executive Committee Meeting held Sunday, June 22, Roger stated that the number of manuscripts being submitted to the *Journal* was lower than in previous years, but fewer were of unacceptable quality. He further noted that the review process usually takes three months and concluded that papers must be published six to nine months after receipt.

The Executive Committee appointed Bob Hillman (Battelle Northeast) to temporarily succeed Roger as Editor. Bob stated that he planned to restructure the JSR review process to include an Editorial Advisory Board. He also reported that Sandra Shumway (Bigelow Laboratory for Ocean Sciences) had agreed to assist him and to eventually take over as Editor of the *Journal*. Mike Castagna (Virginia Institute of Marine Science) was named chairman of the Publications Committee. Ed Cake, Mel Carriker, Bob Hillman, and Roger Mann will also serve on the committee.

Manuscripts for Volume 6 (1) are in review. Present plans are to use a "full-service" publishing company to handle the *Journal* beginning with Volume 6. This company will accept reviewed manuscripts and take care of all further matters including galley and page proofs, printing and mailing, and reprint and back order requests.

Inquiries about manuscripts, reviews, or other editorial matters should be directed to either Bob Hillman or Sandy Shumway:

Dr. Robert Hillman  
Battelle New England  
Washington Street  
Duxbury, MA 02330  
(617) 934-5682

Dr. Sandra Shumway  
Bigelow Laboratory for Ocean Sciences  
McKown Point  
West Boothbay Harbor, ME 04575  
(207) 633-5572

### SUMMARY OF THE 1986 EXECUTIVE COMMITTEE (EXCOM) MEETING

The NSA EXCOM Meeting was held Sunday afternoon, June 22. Secretary- Treasurer Scott Siddall summarized the financial status of the Association as of the fiscal year ending May 31, 1986:

Revenues	\$12,485
Expenditures	\$15,452
Fund Balance 1985	\$ 7,417
Fund Balance 1986	\$ 4,450

Scott reported that more than 300 members had not yet paid their dues for 1986, which resulted in lower-than-expected revenues so far this year. Audit-Budget-Finance Chairman George Abbe presented the proposed budget for June 1, 1986- May 31, 1987 (see next page). It was unanimously approved by the EXCOM. The Committee also concluded that informal "audits" or reviews of the Association's books, which have traditionally been done by a CPA at significant cost, can be done satisfactorily by the Audit-Budget-Finance Committee. This review process will begin in 1987 when a new Secretary-Treasurer takes office.

Honorary Membership Committee Chairman Bob Malouf reported that neither the David Wallace Award nor an Honored Life Membership would be given this year. Eighty-three new members were approved by the EXCOM (see list at end of Newsletter). Scott Siddall reported that 24 members had retired or been dropped from the rolls for nonpayment of dues during the year. (An additional 30 members were recruited during registration at the Meeting).

The matter of eligibility for the Nelson Award was discussed. Last year's Award Committee had recommended that single-authorship be a criterion for papers considered for the Award. The EXCOM concluded that papers with multiple authors should be eligible and that some consistent guidelines for eligibility be included in the new Constitution/By-Laws.

Ken Chew and John Manzi reported on the Aquaculture '86 Meeting held in Reno in January. There were 1,700 registrants at the meeting and \$74,000 in profits were divided among the sponsoring organizations according to the number of their registrants. NSA was an affiliate sponsor of the '86 meeting but expects to be a full sponsor of Aquaculture '89. The EXCOM endorsed Los Angeles as the site of the '89 meeting.

Ed Cake, Chairman of the Nominating Committee announced that about 200 ballots had been received in the election for Association Officers. The results were

President (elected in 1985)	Robert Malouf Marine Sciences Research Center State University of New York Stony Brook, NY 11794 (516) 246-3529
President-Elect	John Manzi South Carolina Marine Resources Research Center PO Box 12559 Charleston, SC 29412 (803) 795-6350
Vice President	Roger Mann Virginia Institute of Marine Science Gloucester Point, VA 23062 (804) 642-7360
Secretary-Treasurer	Scott Siddall Marine Sciences Research Center State University of New York Stony Brook, NY 11794 (516) 246-8678
Member-at-Large (1986-89)	Ron Dugas Louisiana Dept. of Fish and Wildlife PO Box 37 Grand Isle, LA 70358 (504) 568-5678

**NATIONAL SHELLFISHERIES ASSOCIATION, INC.**

**PROPOSED BUDGET 1986 - 1987**

Fiscal Year Ending May 31, 1987

Budget category	PROPOSED 1985-86	ACTUAL 1985-86	PROPOSED 1986-87
<b>REVENUES</b>			
Membership dues	\$ 8,400.00	\$ 6,810.00	\$ 9,000.00
JSR subscriptions	1,800.00	978.00	1,000.00
JSR page charges	3,000.00**	2,495.00**	1,500.00*
JSR reprints	1,000.00**	827.50	1,000.00**
Proceedings, back issues	250.00	77.50	75.00
Meeting abstracts	175.00	-0-	250.00
Abstract page charges	600.00	860.00	500.00
Interest on savings acc't	400.00	544.34	400.00
Contributions	-0-	50.00	-0-
Miscellaneous	-0-	43.00	-0-
Special activities#	-0-	-0-	1,000.00
	<hr/>	<hr/>	<hr/>
TOTALS:	\$20,060.00	\$12,485.34	\$14,725.00
<b>EXPENDITURES</b>			
JSR printing	\$11,500.00***	\$ 7,750.00**	\$ 8,500.00**
JSR typesetting	3,300.00***	3,195.00**	3,500.00**
Meeting abstracts	700.00	750.00	650.00
Newsletter printing	750.00	843.00	900.00
Other printing, copying	380.00	483.99	400.00
Postage	2,000.00***	1,051.23*	2,200.00**
Postal permits	90.00	150.00	50.00
BIOSIS fees	40.00	40.00	40.00
Secretarial services	50.00	-0-	200.00
Mailing lists, labels	50.00	-0-	-0-
Office supplies	300.00	274.82	500.00
Telephone	300.00	278.48	300.00
EXCOM expenses	150.00	97.89	150.00
Legal/accounting services	-0-	-0-	-0-
Award plaques	300.00	126.13	300.00
Bank charges	50.00	1.25	50.00
Miscellaneous	100.00	161.00	100.00
Special activities#	-0-	250.00	450.00
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TOTALS:	\$20,060.00	\$15,452.79	\$18,290.00

\* one issue of JSR; \*\* two issues of JSR; \*\*\* three issues of JSR

# NSA t-shirt sales in 1986 and future years

## SUMMARY OF THE 1986 ANNUAL BUSINESS MEETING

President Bob Hillman called the meeting to order with a quorum of 42 members present. He thanked those NSA members who had helped run the Association over the past year and especially those who had organized the Seattle meeting. A resolution was unanimously adopted thanking organizers for their dedicated efforts in making the convention a resounding success. Secretary-Treasurer Scott Siddall and Audit-Budget-Finance Committee Chairman George Abbe reviewed the financial status of NSA (see EXCOM MEETING SUMMARY). Both the Treasurer's report and the 1986-87 proposed budget were approved. Scott noted that NSA currently has 722 active members.

John Manzi discussed arrangements for the 1987 meeting, which will be held in Halifax, Nova Scotia. John noted that SINA had decided not to meet outside of the country in 1987. This means that NSA will be conducting the meeting on its own, including the handling of registration, which has previously been done by SINA. Both SINA and its umbrella organization NFI (National Fisheries Institute) are looking forward to future joint meeting with NSA when possible. Several sites on the Gulf Coast, including New Orleans, Biloxi, and Corpus Christi, are being considered for the 1988 meeting. John also pointed out that NSA's participation in the Aquaculture '89 Meeting could be a significant source of revenue for the Association (see EXCOM SUMMARY).

President Hillman reported on the progress made in revising the Association's Constitution and By-Laws. The original goal of completing this task before the 1986 meeting could not be met as the documents required major revision; however, the committee hopes to complete the task well in advance of the 1987 meeting.

Bob then turned over the gavel to incoming President Robert Malouf who, in turn, presented Bob Hillman with a plaque honoring his service to the Association.

President Malouf appointed the following individuals to serve as 1986-87 committee chairmen and members:

Audit-Budget-Finance	George Abbe
Honorary Membership	John Manzi
Membership	Roger Newell
Nominating	Bob Hillman
Program	Roger Mann
	1984-87 Thomas Soniat
	1985-88 Scott Gallager
	1986-89 (to be announced)
Publications	Michael Castagna
	Edwin Cake
	Mel Carriker
	Robert Hillman
	Roger Mann
Resolutions	Marie White
Site & Registration	John Manzi
	Joan Kean
	Rene Lavoie
	Lincoln McLeod
	Gary Newkirk
NSA Representative to	
Aquaculture '89 Steering Comm.	Kenneth Chew
Constitutional Revision	Bob Hillman
	Edwin Cake
	Vic Kennedy
	John Manzi
	Scott Siddall

President Malouf announced that Newsletter Editor Susan Ford would be resigning soon. John Ewart (College of Marine Studies, University of Delaware) will replace her beginning with the January, 1987 issue. All announcements, address changes, and queries should be sent to

John Ewart  
College of Marine Studies  
University of Delaware  
Lewes, DE 19958  
(302) 645-4366

#### 1987 NSA MEETING SET FOR HALIFAX, NOVA SCOTIA

The 79th Annual NSA Meeting is schedule to be held in Halifax, Nova Scotia August 9-13, 1987. Site and Registration Committee Chairman is John Manzi (SC Marine Resources Research Institute); however, a Convention Coordinating Committee in Halifax is handling local arrangements. For more information, please contact

Brian Muise, Chairman  
NSA Convention Coordinating Committee  
Nova Scotia Department of Fisheries  
PO Box 2223  
Halifax, N.S. B3J 3C4  
Canada  
(902) 424-4560

Program Chairman for the 1987 Meeting is Roger Mann. Please send suggestions for special sessions (or any other suggestions) to

Roger Mann  
Virginia Institute of Marine Science  
Gloucester Point, VA 23062  
(804) 642-7360

Further information about the meeting, as well all registration and abstract forms, will be included in the January Newsletter. The deadline for abstracts is April 1, 1987. Although SINA will not be an official participant in the 1987 Meeting, all SINA members are invited. NSA members are urged to bring the meeting to the attention of their SINA acquaintances and to encourage them to attend. Shellfish industry-oriented attractions of Nova Scotia will be detailed in the next issues of the Newsletter.

#### PACIFIC COAST NSA ELECTS OFFICERS

The following members of the Pacific Coast Section of NSA have been elected to office for the year 1986-87:

Chairperson	Carolyn Gangmark
Vice-Chairperson	Ralph Elston
Secretary-Treasurer	Ken Cooper
Members-at-Large	Dick Burge
	Jim Donaldson

## COMING MEETINGS

### Aquaculture Association of Canada

The Aquaculture Association of Canada will hold its annual convention in Quebec City, April 29-May 1, 1987. Abstracts are due by November 15, 1986. Three workshops are planned:

1. Successful experiences in marketing aquaculture products.
2. Aquaculture in cold waters: problems and solutions.
3. Potential and uses of computers in aquaculture.

For further information, please contact

Paul-Emile Lafleur  
Ministry of Agriculture, Fisheries, and Food  
96 Montee Sandy-Beach CP 1070  
Gaspé, Quebec G0C 1R0  
Canada

### Estuarine Research Federation

The Ninth Biennial Estuarine Research Federation Conference is scheduled for November 1-5, 1987 at the Clarion Hotel in New Orleans. For program information, please contact

Donald F. Boesch  
Louisiana Universities Marine Consortium  
Cocodrie Star Rt., Box 541  
Chauvin, LA 70344  
(504) 851-2800

### Hofstra University Conference

Hofstra University will host an international conference on "Shellfishing and Coastal Resource Management: A Global Perspective", August 19-21, 1987. Papers are invited from all disciplines - industry, university, government - and multidisciplinary approaches to dealing with problems and solutions in this field are encouraged. Complete papers are due January 30, 1987. A letter of intent and a 100-250 word abstract should be submitted by November 30, 1986 to

Dr. Terry Baker  
Associate Dean  
School of Education  
Hofstra University  
Hempstead, NY 11550  
(516) 560-5742

## PUBLICATIONS

### *CRITICAL REVIEWS IN MARINE SCIENCE*

CRC Press has scheduled the initial issue of a new journal, *Critical Reviews in Marine Science*, for late summer, 1987. According to Editor, Michael Kennish (Environmental Controls Department, GPU Nuclear Corporation, Forked River, NJ 08731-0388; (609) 971-4061), the journal will publish "problem-focus" reviews of "significant new developments in marine biology, marine chemistry, and marine geology." Each issue will consist of 4 articles of about 25 printed pages each, although longer articles of up to 50 pages will be considered. All manuscripts will be refereed by recognized specialists in the field. Authors will receive \$7.50 per printed page. Please contact Mike if you are interested in authoring a paper.

### *SYNOPSIS OF INVERTEBRATE PATHOLOGY EXCLUSIVE OF INSECTS*

By Albert K. Sparks. A survey of both communicable and noncommunicable diseases in invertebrates, excluding insects. Chapters deal with inflammation and wound repair, physical and chemical injury, tumors, and diseases caused by a variety of agents from viruses to crustacean. Elsevier Press. 423 pp. US \$120.00. ISBN-0-444-80678-4.

### *ECOLOGY OF ESTUARIES*

By Michael J. Kennish. A comprehensive summary of current information available on estuarine ecology that reviews concepts and problems of estuaries and assesses the value of these important coastal systems. Volume 1: Physical and Chemical Aspects. Classification of estuaries, origin and longevity of estuaries, physical factors, chemical factors, organic matter, sediments. CRC Press. 272 pp. US \$117.00. ISBN-0-8493-5892-2.

### *THE NAUTILUS*

The 100-year old journal, *The Nautilus*, which has been edited by Dr. R. Tucker Abbott for 28 years, has been transferred from the American Malacologists to the non-profit Trophon Corporation of Maryland. Dr. M.G. "Jerry" Harasewych of the Smithsonian Institution will be the new editor, with Dr. Abbott serving as a consulting editor. Subscriptions and manuscripts should be sent to *The Nautilus*, PO Box 3430, Silver Spring, MD 20901-0340. Back volumes will be available from Dr. W. Backhuys, PO Box 9000, 2300 PA Leiden, The Netherlands.

## EMPLOYMENT OPPORTUNITIES

### Mississippi State University

Aquacultural Research Associate for research in aquacultural production of channel catfish and selected other finfish and crustaceans. Duties include the setup and supervision of field and laboratory experiments, and collection and analysis of data. Qualifications include an M.S. or Ph.D. in aquaculture, fisheries, or a related field. Experience with finfish and/or crustacean culture and microcomputer operation highly desirable. This is a full-time position, starting approximately January, 1987, at \$20,000 per year for 30 months, with possibility of renewal. Deadline is 15 November or until a suitable candidate is found. Send letter of application, vitae, transcripts, and 3 letters of reference to Dr. Dale H. Arner, Dept. of Wildlife and Fisheries, P.O. Drawer LW, Mississippi State, MS 39762; (601) 325-3133.



Mississippi State University

Aquaculture Research Assistant for research projects on channel catfish and freshwater shrimp culture. Requires a minimum of a B.S., in fisheries (fish culture), aquaculture, or a related field. Experience in aquaculture is highly desirable. Duties involve daily operation and maintenance of aquaculture facilities that include all production phases. Salary negotiable. Position available November 1, 1986 or until a suitable applicant is found. Send letter of application, resume, transcripts and names, addresses, and phone numbers of three references to Dr. Dale H. Arner, Dept. of Wildlife and Fisheries, P.O. Drawer LW, Mississippi State, MS 39762; (601) 325-3133.

Shrimp Hatchery and Farm in Guatemala

Positions are available for 2 biologists to take charge of and put into operation a pilot shrimp hatchery/farm in Guatemala. The present operation consists of a shrimp fishing fleet of 22 vessels, a processing plant, and dry-dock repair facilities. The company is interested in expanding into semi-intensive and extensive culture. Please contact Cesar Moreira, Ladex Corporation, 8020 N.W. 60th St., Miami, FL, 33166; (305) 591-7411.

USDA - Waimanalo, Hawaii

The US Dept. of Agriculture, Agricultural Research Service, in conjunction with the Oceanic Institute, Waimanalo, HI, has an immediate opening for a larval fish aquaculturist (GS-9, \$21,804 plus 22.5% COLA per year). Applicant must a US citizen; have a Ph.D. in aquaculture, fisheries science, or a closely related discipline; and have the ability to conduct basic and applied research in the nutrition of marine larval fishes. Duration of assignment is 2 years. Applicants should send resumes to D.W. Freeman, USDA-ARS, Tropical Aquaculture Research Unit, Oceanic Institute, Makapuu Point, Wainamalo, HI 96795; (808) 259-7951.

INSTRUCTIONS FOR JOB PLACEMENT SECTION

Employment opportunities in shellfish research, management, and industry, including graduate student assistantships; and personal summaries for individuals seeking employment in these fields will be listed in the Newsletter. Employment openings should be described in no more than 300 words and personal summaries should not exceed 150 words. We cannot guarantee that employment announcements will appear before posted closing dates. Anonymous postal box returns are available for persons not wishing to publicize their search for employment.

Please forward descriptions of positions open or sought, or any other items of interest to NSA members to

John Ewart  
College of Marine Studies  
University of Delaware  
Lewes, DE 19958  
(302) 645-4366

New Members

<u>Member</u>	<u>Address</u>	<u>Research Interests</u>
Babcock, Malin M.	Auke Bay Fisheries Lab Box 210155 Auke Bay	AK 99821 physiological, ecological requirements, toxicological effx
Beaudry, Clarke	4214 Ninth Avenue N.E. Seattle	WA 98105 aquaculture, disease, early development, physiology
Bedinger, Edward K.	148 Twinview Drive Sequim	WA 98382 bivalve hatchery management, third world projects
Bohn, Richard E.	Box 1071 Gloucester Point	VA 23062 bivalves, hatcheries, commercial fishing
Borgeson, Will	Aquaculture Program Bodega Marine Lab P. O. Box 247	CA 94923
Burreson, Eugene M.	Virginia Institute of Marine Science Gloucester Point	VA 23062 protozoan diseases
Castille, Frank L.	Shrimp Mariculture Project P. O. Drawer Q Port Aransas	TX 78373 shrimp culture and physiology
Cathcart, Thomas	Department of Agricultural Engineering University of Maryland	MD 20742 shellfish culture engineering concerns
Cecil, Alan V.	Chincoteague and Chesapeake Finfish and Shellfish Co. 305 Caroline Street	MD 21842 seafood marketing, oysters and clams
Cerrato, Robert M.	Marine Sciences Research Ctr. State University of New York Stony Brook	NY 11794 population dynamics, macrobenthos, growth
Cheney, Daniel P.	15916 N. E. 1st Street Bellevue	WA 98008 hatchery, nursery and growout of Manila clams, aquaculture
Chiba, Kathryn T.	N.M.F.S. Milford Lab 212 Rogers Avenue Milford	CT 06460 shellfish aquaculture
Cooper, Ken L.	Coast Oyster Co. P. O. Box 327 Quilcene	WA 98376 bivalve hatcheries, nurseries, growout, research
Cropp, Derek Anth	G.P.O. 619F Hobart 7001 Tasmania	bivalve culture, particularly scallops, abalone culture
Crow, Christian	793 Jennifer Jean Baton Rouge	LA 70808
Daniel, Peter	Department of Biology Georgia State University Atlanta	GA 30303 chemical sensing, nutrition, management
Davlin, Jr., Andrew	Abalone Unlimited, Inc. P. O. Box 730 Guadalupe	CA 93434 red abalone
Dewey, William	239 Chuckanut Bow	WA 98232 oysters and clams
Dugan, Jenifer E.	Department of Biological Sciences University of California	CA 93106 crustacean biology
Ewart, John W.	College of Marine Studies University of Delaware Lewes	DE 19958 aquaculture, fisheries, marine ecology, technology
Foster, John E.	Rt. 3 Box 299-B Raleigh	NC 27603 aquaculture

<u>Member</u>	<u>Address</u>	<u>Research Interests</u>
Frechette, M.	Fisheries and Oceans C. P. 15500 901 Cap Diamant	
Gillis, Brian	P. O. Box 2000 - PEI Dept. of Fisheries and Labour Charlottetown	oysters, mussels
Gorzelay, Jay	Mote Marine Laboratory 1600 City Island Park Sarasota	FL 33577 oyster reef ecology, oyster associated fauna
Grizzle, Raymond E.	Center for Coastal and Environmental Studies Rutgers University	NJ 08903 suspension feeding bivalves
Harry, Harold W.	4612 Evergreen Street Bellaire	TX 77401 oysters and other molluscs
Hawes, Robert D.	Department of Animal Sciences Hitchner Hall University of Maine	ME 04469 breeding and genetics, oysters, scallops, clams
Heffernan, Peter	Marine Extension Service Box 13687 Skidaway Island	GA 31416 hatchery management, genetic selection
Henson, Dr. Richard	Department of Biology Appalachian State University Boone	NC 28608 teach marine biology
Hetrick, James J.	Box 788 Whittier	AK 99693 oysters, mussels and scallops
Hughes, S. J.	Private Bag Manners St Post Office Wellington	mollusc culture
Jamieson, Dr. Glen S	Pacific Biological Station Nanaimo, British Columbia Canada V9R 5K6	crustacean population dynamics, bivalve culture
John's Seafood Co., Honest	750 Mullet Creek Road Melbourne Beach	FL 32951 producer, wholesaler, hard clam culture
Johnson, Graham	Ostred Sea Farms 6060 Willow Street Halifax, Nova Scotia	European oysters, American lobster, mussels
Johnson, Kurt W.	4808 S. East Harbor Road Freeland	WA 98249 aquaculture, especially mussels
Jones, R. Russ	3035 30th Avenue W. Seattle	WA 98199
Kaill, Dr. Michael	P. O. Box 3-200 Division of FRED Juneau	AK 99802 scallop, oyster, mussel culture
Kreeger, Daniel A.	University of Delaware 700 Pilottown Road Lewes	DE 19958
Kresge, William	4804 48th Avenue SW Seattle	WA 98116 pathology, aquaculture
Lamon, Mark S.	249 Parker Ag Center - LSU Baton Rouge	LA 70803 freshwater prawns, Macrobrachium
Lanteigne, Leon	C. P. 942 Shippagan New Brunswick Canada	
Leonard, Dorothy L.	NOAA/NMFS 3300 Whitehaven St. N.W. Washington	DC 20235 molluscs, quality of shellfish growing waters
Loftis, J.	P. O. Box 5565 Austin	TX 78763

<u>Member</u>	<u>Address</u>	<u>Research Interests</u>
Ma, Alex P.	1906 22nd Avenue E Seattle	WA 98112 genetics, hatchery, breeding
MacWatters, Robert	P. O. Box 692 Cooperstown	NY 13326 zoogeography and taxonomy of boreal molluscs Gulf of Me.
Marcus, Mike	S. C. Dept. Health and Environmental Control 2600 Bull Street	SC 29201 physiology/ecology related to water quality, pollution
McCloy, Thomas W.	Nacote Creek Shellfish Office Rte. 9 Absecon	NJ 08201 natural resource management, aquaculture
McVey, James P.	12528 Knightsbridge Ct. Potomac	MD 20854 hatchery, seeding, policy, management
Meehan, Brian W.	Virginia Institute of Marine Science Gloucester Point	VA 23062 population genetics, ecology, biogeography
Melancon, Earl J.	Dept. of Biological Sciences Nicholls State University Thibodaux	LA 70310 oyster culture, natural stock assessments of molluscs
Miller, Harry James	General Delivery Refuge Cove British Columbia	mollusc and crustacean culture, especially scallop culture
Morales-Alamo, Reinaldo	Virginia Institute of Marine Science Gloucester Point	VA 23062 oyster spat settlement and mortality, oyster ecology
Nelson, William	1203 East "D" Street #101 Tacoma	WA 98421
Neushul, Michael	244 Vereda Galeria Goleta	CA 93117 paralytic and diauretic shellfish toxins
Nilssen, Jens Pette	Norsk Biotech P. O. Box 788, Krossen N-4301 Sandnes	crayfish, shrimp, oysters
O'Rourke, Caroline	S. C. Marine Resources Dept. P. O. Box 12259 Charleston	SC 29412 biology of cultured shellfish
Olquin, Irma	Department of Oceanography Florida State University Tallahassee	FL 32306 reproductive ecology of oysters
Orwicz, Ms. Kris	1245 Cunningham Bivno	CA 95620 system design, water quality for rearing facilities
Osborne, William	402 Center Avenue Kodiak	AK 99615 scallop culture
Pardee, Marsha	P. O. Box 71 Folly Beach	SC 29439 fresh and marine shrimp and finfish
Poisson, Francois	Impasse H. Godon St. Germain Village 27500 Pont Audemer	bivalve aquaculture, hatcheries
Rammer, Alan D.	Washington Dept. of Fisheries 331 State Hwy. 12 Montesano	WA 98563 shellfish culture, underutilized species
REFERENCE ROOM, MSRC	Marine Sciences Research Center SUNY	NY 11794
Richards, John B.	U. C. Marine Advisory Program 377 Storke Road Goleta	CA 93117 abalone, mussel, scallop, oyster culture, mariculture
Rickard, Neil A.	Washington Dept. of Fisheries Coastal Laboratory	WA 98563 clam management, enhancement, mechanical harvesting

<u>Member</u>	<u>Address</u>	<u>Research Interests</u>
Rofer, Robert R.	331 State Highway 12 2242 Davis Court Hayward	CA 94545 aquaculture
Rogers, Don A.	6331 Murray Ct. N.W. Olympia	WA 98502
Roland, Beth	Marine Resources Division P. O. Box 12559 Charleston	SC 29412 management of clam and oyster resources
Sanguanruang, Mattana	School of Forestry, Wildlife and Fisheries LSU	LA 70803 shrimp and crawfish
Scully, Kevin C.	127 Hitchner Hall University of Maine at Orono Orono	ME 04469 shellfish genetics, larval biology, hatchery techniques
Seaman, Matthias	Institut für Meereskunde an der Universität Kiel Dusternbrooker Weg 20	
Shriner, Jan	173 Dabob PO Road Quilcene	WA 98376 invertebrate culture
Smith, Barry D.	University of Guam Marine Lab Mangilao Guam	96923 marine molluscs, tropical gastropods
Staton, Hugh W.	Abalone Unlimited, Inc. P. O. Box 730 Guadalupe	CA 93434 red abalone
Stavostrand, Susan Merr	6965 Svanoybukt Norway	shellfish hatcheries, nurseries
Steele, R. Dunbar	Department of Zoology University of the West Indies Kingston 7 Jamaica	oyster culture
Stroud, Wendell H.	1203 East "D" Street #101 Tacoma	WA 98421
Talin, Susan M.	Aquacultural Research Corp. P. O. Box AC Dennis	MA 02638 bivalve aquaculture, bivalve nutrition
Torigoe, Kenji	Faculty of School Education Hiroshima University 1-33 Shinonome 3-chome	bivalve systematics, attached bivalvia
Treablay, M. John	Dept. of Fisheries and Oceans P. O. Box 550 Halifax N.S. B3J2S7	larval and juvenile ecology of scallops, management
Van Sant, Kay B.	21-C Brockman Drive Charleston	SC 29412 clams, shrimp, whelks, deep-sea crabs
Varsaci, Ron	912 Atlantis Blvd. Tuckerton	NJ 08087 management and sanitation
Waterstrat, Paul R.	Drawer V, College of Vet Medicine - Mississippi State	MS 39762 bivalve hatcheries, production systems, pathology
Wright, Douglas	Mississippi State Charlottetown Metal Products P. O. Box 323 Charlottetown, PEI	blue mussel culturing and processing

# THE NATIONAL SHELLFISHERIES ASSOCIATION WANTS YOU !!

The National Shellfisheries Association (NSA) is an international organization of scientists, management officials and members of industry that is deeply concerned and dedicated to the formulation of ideas and promotion of knowledge pertinent to the biology, ecology, production, economics and management of shellfish resources. The Association has a membership of nearly 800 from all parts of the USA, Canada and 18 other nations; the Association strongly encourages graduate student's membership and participation.

## WHAT DOES IT DO?

- Sponsors an annual scientific conference.
- Publishes the peer-reviewed *Journal of Shellfish Research*.
- Produces a Quarterly Newsletter.
- Interacts with other associations and industry.

## WHAT CAN IT DO FOR YOU?

- You will meet kindred scientists, managers and industry officials at annual meetings.
- You will get peer review through presentation of papers at the annual meeting.
- If you are young, you will benefit from the experience of your elders.
- If you are an elder, you will be rejuvenated by the fresh ideas of youth.
- If you are a student, you will make most useful contacts for your job search.
- If you are a potential employer, you will meet promising young people.
- You will receive a scientific journal containing important research articles.
- You will receive a Quarterly Newsletter providing information on the Association and its activities, a book review section, information on other societies and their meetings, a job placement section, etc.

## HOW TO JOIN

- Fill out and mail a copy of the application blank below. The dues are ONLY US \$18 per year (\$15 for students) and that includes the *Journal* and the Newsletter!

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### NATIONAL SHELLFISHERIES ASSOCIATION - APPLICATION FOR MEMBERSHIP (NEW MEMBERS ONLY)

Name: \_\_\_\_\_ For the calendar year: \_\_\_\_\_ Date: \_\_\_\_\_

Mailing address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Institution affiliation, if any: \_\_\_\_\_

Shellfishery interests: \_\_\_\_\_

Regular or student membership: \_\_\_\_\_

Student members only - advisor's signature REQUIRED: \_\_\_\_\_

Make cheques (MUST be drawn on a US bank) or international postal money orders for \$18 (\$15 for students with advisor's signature) payable to the National Shellfisheries Association and send to Scott E. Siddall, Secretary-Treasurer, Marine Sciences Research Center, State University of New York, Stony Brook, NY 11794-5000 USA.