National Shellfisheries Association

QUARTERLY NEWSLETTER

May 2010 ORONO, ME

President's Message

If you missed Aquaculture 2010 in March you passed up a wonderful gathering of scientists from many diverse disciplines. I want to thank all the individuals who helped make this year's Annual Meeting in San Diego so successful. Sandy Shumway served as Chair of the Steering Committee for Aquaculture 2010 and the NSA Program Committee; through her efforts she ensured that a wide variety of sessions relating to shellfish were offered on a daily basis. Other Steering Committee members who played an integral part in organizing this meeting include John Nickum (Fish Culture Section, AFS), Michael Masser (World Aquaculture Association) and overall Program Chair, Joe Tomasso. Special thanks are due to John and Mary Cooksey, Conference Managers, without who Aquaculture 2010 could not have taken place. In addition, thanks are due to Member-at-Large, Steve Allen, who assisted Sandy in representing NSA and our interests during preparations for this meeting. Steve also helped tremendously on many behind the scenes activities including the Student Endowment Fund (SEF) Auction. A big thank you is due to all the session chairs who organized and implemented sessions on a wide variety of topics at this year's gathering.

Special thanks are also due to Committee Chairs who had especially active roles at the meeting. Student Recruits Co-chairs, Maxine Chaney and Stephanie Reiner, were tireless in their work assisting and organizing the cadre of students who manned the NSA booth. They also contributed to the Aquaculture 2010 Student Reception and provided tremendous support to the SEF Auction. Student Awards Co-chair, Marta Gomez-Chairi, assisted by Ryan Carnegie, organized and implemented the judging for the student awards. I would like to extend hearty congratulations to Kristi Straus, recipient of the Thurlow C. Nelson Award, and Michael Nelson, recipient of the Gordon Gunter Award (see page 3). A great deal of work goes into judging the student presentations and posters, and I encourage all students to continue improving your presentations, as these NSA awards are prestigious and can help to create additional opportunities down the road.

The NSA Executive Committee (EXCOM) began its work early on the Monday morning prior to the start of the regular meeting. A number of action items for continuing to improve member services were discussed. The EXCOM approved the 2010 NSA Membership Directory, long in the making, but soon to be available in a hard copy format. I want to thank Membership Chair, Bill Walton, for his dedicated work on this project. Continued improvements to the Web

Continued on page 11

The 103rd Annual Meeting of the National Shellfisheries Association will be held in Baltimore's Inner Harbor District. Make your plans now to attend; more information can be found on page 3.

In this issue:

Recruits' Corner

Hello NSA Students!

Spring is here, as is another update from your Recruits Co-chairs! Thanks to the efforts of many, Aquaculture 2010 in San Diego was a complete success with lots of exciting student events. The meeting was kicked off with an informative field trip to the Hubbs SeaWorld hatchery that gave participants a behind-the-scenes look at how a hatchery operates. A scavenger hunt provided students who were new to San Diego a feel for the area. Although few teams finished the hunt, we received positive feedback from those who met students from the other sponsoring organizations.

The World Aquaculture Society sponsored a student-led seminar "Women in Aquaculture" during which seven speakers from a variety of backgrounds spoke about the course of their careers and gave insightful tips on how to succeed in this field. Tips that we found extremely helpful included, find a balance (sometimes this means saying no), speak up and be confident about your abilities, find a mentor who will be your cheerleader, and develop a support group for both personal and academic well-being. One key conclusion of the seminar was that we are all challenged daily in our academic and personal lives, but by remembering our strengths and keeping realistic goals we will be successful.

We would like to thank those students who worked at the NSA sales booth, helped with the Student Endowment Fund (SEF) auction, and others who lent a hand whenever it was needed. NSA functions only with the help of its members; as the future leaders of NSA we encourage you to become involved. We're looking for interested students to take an active role in the conference planning and events. Please look to the Recruits page on the NSA Website for postings about sessions and events at next year's meeting that would benefit from your time and knowledge. All of the events and sessions are run by volunteers, so why not co-chair a session, solicit donations for the SEF Auction, plan a student social event, or write an article for the *QNL*? For next year's Annual Meeting in Baltimore we are planning to host a game similar to the Quiz Bowl that was held at Aquaculture 2010. Want to be a game show host? Keep in mind, however, that we must coordinate the events well in advance of the meeting, so *act now* and contact us with your ideas.

As Recruits Co-chairs, we are also interested to know all of the ways in which you would like to be involved in NSA; send us an email or leave a posting on the forum to let us know what will help NSA support you better. Be sure to make time for some fun this summer! We look forward to hearing about your research adventures at the meeting next spring.

Maxine Chaney and Stephanie Reiner
Recruits Co-Chairs

COME CELEBRATE,
20th ANNUAL AUCTION

Tuesday, March 29, 2011

Start gathering your contributions now to support the Student Endowment Fund!

Quilt Raffle Supports Student Endowment Fund

Two beautiful, full-sized quilts were proudly on display at the NSA booth during Aquaculture 2010 in San Diego. Both quilts were lovingly quilted by Sandra Scarpa using T-shirts depicting marine labs and shellfish organizations from around the country and the world. The T-shirts Sandra worked into her pieces of art were graciously donated by (in alphabetical order) Stan Allen Jr., Dave Bushek, LeRoy Creswell, Joth Davis, Karen and Danielle Kreeger, Matthew Landau, Chris Langdon, Susan Laramore, Paul Rawson, John Scarpa, and Sandra Shumway. A raffle for one of the quilts at Aquaculture 2010 raised almost $500 for the Student Endowment Fund. Kate Naughten held the winning ticket and chose the quilt with her favorite T-shirts. The second quilt will be given away by a raffle to be held during the 103rd Annual Meeting in Baltimore. Be sure to purchase your raffle tickets and have a shot at winning the second of these two unique and handsome quilts.

Kate Naughten (right) was the lucky winner of one of the two T-shirt quilts hand-crafted by Sandra Scarpa. The second quilt will be raffled during the upcoming 2011 Annual Meeting in Baltimore. Color images of both quilts can be found in the meeting centerfold on pages 8 and 9.

NSA IS HEADED TO BALTIMORE

Yes, we just left San Diego, but plans are well underway for our next annual meeting which will be held in Baltimore, Maryland, **MARCH 27-31, 2011,** at the Sheraton Baltimore City Center. A personalized Web site for NSA with information on the hotel, amenities, and local attractions can be found at the link http://www.starwoodmeeting.com/StarGroupsWeb/booking/reservation?id=1004230825&key=7233D. The hotel is centrally located, a short walk to the Waterfront and all the major attractions provided there, and provides some of the best meeting space we have ever had at our disposal. The Conference Committee includes Sandy Shumway, Steve Allen, Joth Davis, Chris Davis, Leroy Creswell, Maureen Krause and Karolyn Mueller Hansen (contact information on back of *Newsletter*).

Sessions currently being planned or discussed include: ocean chemistry and shellfish, shellfish and human health, blue crabs, shell formation, disease, broodstock development, shellfish genomics, abalone restoration, 'down on the farm', oyster restoration, shellfish aquaculture techniques, feeding physiology, clam culture, gastropods, physiology and benthic-pelagic coupling, commercial fisheries, conditioning, harmful algal blooms and human health, patch dynamics and self organization in bivalves, introductions and invasives, carrying capacity modeling, shellfish aquaculture permitting, and marine spatial planning for aquaculture, as well as sessions for contributed papers.

Don't see your favorite topic listed? Want to volunteer to organize a session? Or just suggest a topic? Contact any member of the committee as soon as possible. Time and space are limited, so do it now! There will be a featured poster session with dedicated time slots, and the 20th Annual SEF Auction. It's never too early to start collecting items or cleaning out your office and attic - remember, nothing is too tacky or whacky.

This year we'll be celebrating the 20th anniversary of the founding of the Recruits (see page 14). Maureen Krause, one of the first co-chairs, is leading that effort along with Recruits Co-chairs, Stephanie Reiner and Maxine Chaney. There will be the usual student-focused session, and there will also be other fun activities, including a scavenger hunt - watch for more details.

THE ABSTRACT DEADLINE IS DECEMBER 13, 2010, watch the Web page for updates. The mid-Atlantic region is always a popular one for our conferences and we expect a large crowd - plan to be part of it!

Sandy Shumway
Program Chair

Congratulations to Student Presentation Award Winners

Sunny San Diego was the venue for yet another exciting competition for the Thurlow C. Nelson and Gordon Gunter Awards. Congratulations to the following students for their award-winning presentations at the Aquaculture 2010 meeting.

The Thurlow C. Nelson Award for outstanding student oral presentation was presented to Kristi Straus from the School of Aquatic & Fishery Sciences at the University of Washington for her talk "Past, present, and future genetic variation in cultured and wild geoduck clams, *Panopea generosa*". Honorable mention for outstanding student oral presentation was awarded to Maria Rosa from the University of Connecticut for her talk "Effects of particle surface properties on feeding selectivity by the eastern oyster *Crassostrea virginica* and the blue mussel *Mytilus edulis*".

The Gordon Gunter Poster Award for the outstanding student poster presentation was presented to Michael Nelson, an undergraduate student at Medgar Evers College, for the poster titled "Correlation of membrane potential and ciliary activity of the lateral ciliated cells of gill of the bivalve mollusc *Crassostrea virginica*, and the neurotoxic effects of manganese".

Thank you to all of the members who judged the 18 student talks and 10 posters that were presented during the meeting. Judging is an extremely important task and the NSA greatly appreciates your efforts. Judges at this year's meeting were Stan Allen, Steve Allen, Mark Camara, Dan Cheney, Jan Cordes, Anu Frank-Lawale, Pat Gaffney, Helen Gurney-Smith, Maureen Krause, Gulnihal Ozbay, Kim Reece, John Scarpa, Eric Schott, and Evan Ward. Special thanks to Ryan Carnegie, who stepped up to the plate and helped in the organization of the judging when Chris Dungan was not able to attend the meeting.

Please consider volunteering to judge student presentations at the 103rd Annual Meeting in Baltimore and help our student members master their presentation skills. For information on the Nelson and Gunter Awards or to volunteer as a student presentation judge contact Student Endowment and Awards Committee Co-Chairs Chris Dungan (cdungan@dnr.state.md) or Marta Gómez-Chiari (gomezchi@uri.edu).

Marta Gómez-Chiarri
Chris Dungan
Student Endowment and Awards Committee

News from the Pacific Coast Section

Graduation caps are being tossed into the air and the summer field season is fast approaching. That must mean it is time for the call for papers for the annual meeting of the Pacific Coast Section and Pacific Coast Shellfish Growers Association!

Our annual conference will be held September 20-23, 2010, at the Hotel Murano in Tacoma, Washington. The hotel is just up the street from the famous Museum of Glass, the Chihuly Bridge of Glass, many wonderful museums, and the new Center for Urban Waters.

Important deadlines to keep in mind:

June 1, 2010 – Abstracts due! Visit www.pcsga.org/abstracts to register and submit your full abstract. Undergraduate and graduate students can win fabulous prizes for their fabulous presentation.

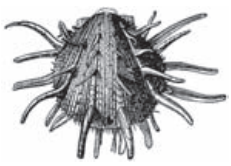
August 27, 2010 - Register for the conference by August 27th to receive early bird discount rates. Be sure to also reserve your hotel room at the Hotel Murano in Tacoma (206-238-8000) by August 27th and don't forget to indicate that you are an NSA member to receive a discounted rate on your room.

Financial assistance for registration and lodging is available to student contributors through the Ken Chew Student Endowment and the Adopt-A-Student industry funds. Students requiring financial assistance should submit a request with their abstract; questions on financial assistance may be directed to Randy Hatch (rhatch@pnptc.org, 360-297-6536).

Of course, the design team is hard at work creating the new item for the Ken Chew Student Endowment fundraiser and a few 'Clams Suck Phytoplankton' t-shirts are left from our limited edition printing. Check out our Web site for more information and to order yours today (http://nsapcs.org/). If you would like to help with the conference, please contact me (guatemal@uw.edu, 360-432-3054); we'd love to have your assistance!

Hurray for daylight low tides! Happy Graduation! *Remember, membership in NSA and the Pacific Coast Section makes a great gift for the new graduate!*

Teri King
Pacific Coast Section Chair



Carriker and Castagna Student Grants Awarded

Congratulations to Joshua Moody of Rutgers University and Andrew Ray of the University of Southern Mississippi recipients of the 2010 NSA Student Research Grants. Each grant provides $1,250 to support student research expenses. Twelve students competed for the Awards this year and these two rose to the top. Joshua received the Melbourne R. Carriker Student Research Grant and will be using his funds to investigate "The relationship between ribbed mussel (*Geukensia demissa*) density and salt marsh shoreline erosion". Andrew received the Michael Castagna Student Grant for Applied Research to study "The effects of physical substrate area and carbohydrate addition on shrimp (*Litopenaeus vannamei*) production and nitrogen cycling in superintensive, zero-exchange culture systems." We wish both students best of luck in their research and look forward to reading a synopsis of their work in an upcoming edition of the *Quarterly Newsletter* followed by presentations of their findings at an upcoming annual meeting. Thanks go to members Ryan Carnegie, Loren Coen, Maureen Krause, Roger Newell, Rob Rheault, John Scarpa, Philipe Soudant and Steve Tettelbach for taking time to review applications and provide constructive comments to all applicants. All NSA student members are encouraged to apply again in November 2010; see the Website or the next *Newsletter* for application details.

Dave Bushek
Awards Chair

Andrew Ray is congratulated by NSA President, Joth Davis, and Elections and Awards Chair, Dave Bushek (upper photo) upon recieving the Michael Castagna Student Grant for Applied Research during the NSA Business Luncheon at Aquaculture 2010. Joshua Moody was awarded the Melbourne R. Carriker Student Research Grant, but could not attend Aquaculture 2010 due to pressing field work (see lower photo).

A Note from the Editor

As the next issue of *JSR* is being put to bed and I am dealing with many of the same issues that I encounter with every submission and issue, I believe it is time for a few suggestions to help expedite the submission and editorial process.

First and foremost - language! As I receive more and more submissions from authors whose native language is not English, the problems increase. While I admire anyone who can write in a second language, there are standards that must be met for publication in any international journal. Far too many foreign (and native) authors are submitting manuscripts in very poor form and expecting the reviewers and Editor to clean up the paper. This is not their job and only slows the process. In addition, if the paper is poorly written, reviewers have a difficult time and often simply refuse to consider the science until the paper is returned to the authors for rewriting. So, please be sure that your paper is in grammatically correct English, that the references have been checked, and there are no papers cited in the reference list that are not cited in the paper, and none in the paper that have not been properly cited.

You can also speed the process by providing the names and working email addresses of 3-4 potential reviewers. I usually choose one reviewer from this list and one from my own files. And, while we're talking about reviewers and the reviewing process, I would ask authors to be patient. There is a growing trend these days to believe that because a manuscript can be submitted with the click of a button, the reviewing process will proceed at the same pace. Needless to say, it does not. Reviewers are all volunteers and it is getting progressively more difficult to engage our colleagues to provide reviews in a timely manner. Then there are the usual delays associated with academic schedules, spring breaks, Thanksgiving, Christmas, New Years, summer holidays, and on it goes. Think about this the next time you are asked to provide a review - everybody is busy and somebody has to review your papers also - so please try to oblige.

Finally, when you submit your final, accepted paper, be sure it is in final format, i.e. as it should be printed. This is important as you will be charged for every change made to the page proofs that are not printer's errors, i.e. proofread your paper BEFORE you submit it, not when it appears as page proofs.

Consideration of these simple things will greatly expedite the handling of your manuscript from submission to publication.

Sandra Shumway
Editor, *Journal of Shellfish Research*

Audit-Budget-Finance 2010 Update

Total revenues for the 2008-09 fiscal year (October 2008 through September 2009) were $389,504 and expenses were $315,049 for an increase of $74,455, not counting more than $8,100 in net Student Endowment Fund (SEF) activity. Our overall balance ended the year at $328,005 including SEF monies.

Administrative revenues and expenses for 2008-09 were $58,746 and $34,178, respectively, for an increase of $24,568. Publication revenues were $219,788 and expenses were $198,808 for an increase of $20,980. Revenues from the Savannah meeting were $110,970, with expenses of $82,063, for an increase of $28,907.

The proposed budget for the 2010-11 fiscal year, which begins October 1, 2010 projects revenues of $354,590 and expenses of $309,850. If these revenues and expenses are realized, the NSA balance will increase by another $44,740 by the end of that fiscal year, not counting SEF activities. Because the *Journal of Shellfish Research* is our most important product, and because it is expensive to produce with the quality we expect and receive, we realize that its production cost will normally, but not always, exceed publication revenues. This is not a problem; it's just a fact of operations. Administrative Revenues (primarily Member Dues), Institutional Subscriptions and Meeting Revenues help subsidize these excess costs. We occasionally receive Special Issues as a bonus of membership, and having these issues fully paid for by sponsors is a great help to our bottom line.

Although our balances declined a few years ago, we have now seen increases during four of the last five years, and our financial condition is presently better than it has ever been. With adjustments made to improve our revenue stream, the financial strength of National Shellfisheries Association should continue to grow.

George Abbe
Financial Officer
Audit-Budget-Finance

David H. Wallace Award Bestowed on Walter Canzonier

Walter J. Canzonier was honored at NSA's 102nd Annual Meeting with the David C. Wallace Award for promoting "understanding, knowledge, and cooperation among industry members, the academic community, and government". An NSA member since 1958, Walt has been a tireless advocate for stronger ties among these three entities since he was a graduate student.

Walt was born in New Brunswick, NJ and grew up in an Italian-Irish-Scottish family, a genetic and cultural hybridization that probably explains some of his eccentricities and his rather quirky sense of humor. While working on recreational fishing boats as a teenager, he developed an appreciation for the intersection of commerce and marine life. After graduation from St. Peter's College in Jersey City in 1957, Walt came to Rutgers University as a graduate student to work with Hal Haskin, just as the MSX epizootic was beginning to kill oysters in Delaware Bay. He not only developed into a highly talented scientist, but also quickly formed strong ties to local oyster growers and was instrumental in conveying to them scientists finding about this new disease. His competency as an electrician, plumber, and carpenter was invaluable as the "New Jersey Oyster Research Laboratory" (Later the Haskin Shellfish Research Laboratory) added facilities in the ensuing years.

In the mid-1960s, Walt shifted his research focus from oyster diseases to the human diseases caused by the eating of contaminated shellfish, demonstrating in a pivotal experiment, that hard clams do not readily eliminate viruses when depurated. Shellfish sanitation has been one of Walt's passions ever since. He has been a tireless and very vocal advocate for the shellfish industry at Interstate Shellfish Sanitation Commission meetings; pressing the regulators for rational application of rules and pushing the states to meet their water-quality monitoring obligations and the processors to fulfill their obligations as well. In 1971, frustrated because Rutgers would not let him use Italian as one of the two foreign languages needed to demonstrate proficiency for a Ph.D. program, Walt decided to broaden his horizons by moving to Italy, where he worked for a decade in marine laboratories near Venice, eventually becoming director of the Coastal Resources Applied Research Laboratory in Chioggia. There he produced several papers – two in Italian – on mussel depuration and co-authored the first description of *Perkinsus sp.* in Europe. During this period, he was also a consultant for UNESCO, helping to design marine laboratories in Europe and the Middle East.

After 10 years in Italy, he returned to New Jersey and Rutgers, where he helped design the Haskin Shellfish Research Laboratory and worked to define the relationship between phytoplankton dynamics and oyster meat quality. In 1987, he left Rutgers employment, believing that the University was no longer rewarding the type of applied research that he believed important for the shellfish industry. A disastrous MSX epizootic had just occurred and he and local oyster growers formed a non-profit association to test the feasibility of remote setting of oyster larvae from MSX-resistant oysters. He designed and built a setting tank in an old shucking house, organized local watermen to participate in the project, and throughout kept meticulous records of costs and returns so that this method could be compared with traditional methods.

Walt has continued to be a bridge between researchers and the shellfish industry members by designing systems that help the industry - for removing sediment and shell material from shucking house effluent; for counting clam seed, and for continuous algal culture, to name a few. He is a fixture at Shellfish Council meetings and has participated on countless committees. He was a major force in developing the New Jersey Aquaculture plan and the Delaware Bay Oyster Revitalization Task Force report. Few days go by when an industry member doesn't stop by to ask him a question. He explains policies and helps them write letters. He's always happy to take visitors through the laboratory or to organize an event that promotes shellfish consumption.

Walt can be credited with saving the New Jersey clam depuration industry several times when the entire industry was in jeopardy of being shut down due to regulatory and engineering problems. On many occasions he stepped in to find solutions, including designing entire systems, preserving a multi-million dollar industry, and dozens of jobs. When Delaware Bay oyster harvesters were facing closures and harvest restrictions associated with summer *Vibrio* illnesses, Walt devised a novel spray-misting swamp-cooler enabling harvesters to stay on the water longer while still protecting public health.

Walt was founding member of the New Jersey Aquaculture Association and served as its president from 1991 to 2000, and served on the Northeastern Regional Aquaculture Center Board of Directors and Executive Committee for many years. His vitae lists membership in numerous shellfish-related technical committees in the U.S. and abroad, but he never seeks out honors or praise. He will tell you about a discovery or technique, but leave you to find out on your own that it was his discovery or his design. Walt is also a great historian and serves as the institutional memory for several groups, bringing the perspective of fifty years of commitment and devotion to science and industry. To quote fellow graduate student and former Wallace Award winner, Herb Hidu, "Walt defines the Wallace Award".

Susan Ford
John Kraeuter
Robert Rheault

Industry Report: The Crucial Role of Shellfish Research

In my job as Public Policy and Communications Director for Taylor Shellfish, I am constantly seeking and encouraging the use of best available science. The following are some examples of best available science being used to inform public policy. I hope they serve as an inspiration to NSA scientists of the value of your research and collaboration with the shellfish culture industry.

The United States Army Corps of Engineers continues to implement the "new" Nationwide Permit 48 that covers all shellfish farms existing as of March 2007. A crucial step prior to certifying coverage under the NWP 48, in areas of the country where shellfish farms overlap the habitat of threatened or endangered (T&E) species, is an ESA Section 7 consultation. Certification also requires an Essential Fish Habitat consultation under the Magnuson Stevens Act; consultations are conducted with the National Marine Fisheries Service and US Fish & Wildlife Service. These consultations involve a review of the best available science for effects on T&E and managed fish species and a determination regarding whether the permitted activity will result in a "take" of the species. The research conducted by many NSA scientists has proven invaluable in this consultation process. In Washington State, consultation concluded there would be "no take" and recommended a number of discretionary conservation measures for shellfish farms. The Corps is currently reviewing the Services' proposed conservation measures to determine which they will include as regional conditions of the NWP 48 for Washington. The Oregon consultation is underway and the California consultation is just about to begin.

Research on the environmental effects of shellfish culture is also informing the development of other regulations. Under Washington's Shoreline Management Act, each county develops Shoreline Master Programs (SMPs). These SMPs dictate local regulatory requirements for aquaculture. Washington coastal counties are currently updating their SMPs and, in the process, are seeking the best available science to inform their decisions regarding aquaculture regulations.

A bill passed by the Washington legislature in 2007 directs the State Department of Ecology to develop rules for the culture of geoduck clams. They also appropriated $750,000 to study the environmental effects of geoduck culture. A review of the best available science was also conducted with this funding. This review and the new research are informing the rule development.

The future of Drakes Bay Oyster Company in California hangs on best available science. The National Academy of Science's National Research Council recently reviewed the environmental effects of this operation. That review of best available science was to inform the National Park Service's decision regarding whether or not to renew the company's shore-side lease in the Point Reyes National Seashore when it expires in 2012. The Academy also reviewed and recommended best management practices for the industry as a whole. While the Academy's reviews are generally held in high regard, these particular reports have been controversial and criticized. For reasons I don't fully understand, the National Research Council opted not to include industry representation on this Best Practices panel. An unfortunate consequence is that wild harvest effects and practices were inappropriately aligned with shellfish culture practices and some of the recommendations for best management practices are impractical to implement.

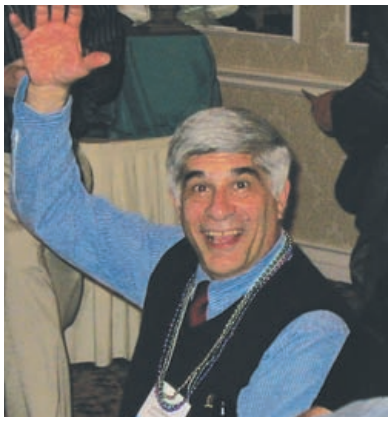
It is an ongoing challenge to find ways to inform policy makers and implementers of the best available science regarding the environmental effects of shellfish culture. To that end, NOAA funded a two day national symposium on the subject in June 2008. A spin-off from that symposium is a book, spearheaded by Sandy Shumway, titled *Shellfish Aquaculture and the Environment*. Funded by NOAA and Wiley-Blackwell, this multi-author publication due out later this summer should serve as a conglomeration of the current best available science on the subject.

NOAA is currently developing a Webpage on shellfish aquaculture permitting processes. It will include an extensive bibliography of the best available science as well as general information to help guide growers through the permit process. The site will include road maps for the application process, lists of permits needed, information on issues that need to be addressed by the applicant, contact information for various agencies, state aquaculture coordinators, maps of existing shellfish culture, habitat classification, and more. If you have ideas for what should be included on this Webpage, contact Sandy Shumway.

While studies regarding environmental effects are only one of a number of shellfish industry research priorities, I hope this article has stressed the critical importance of conducting them as well as communicating the results in a manner useful to growers and policy maker/implementers.

Bill Dewey
Taylor Shellfish

IMAGES FROM THE 102ND ANN



NUAL MEETING IN SAN DIEGO

In Memoriam
Albert Walker Collier
1910–2009

Albert Walker Collier was the last surviving founding member of the American Institute of Fishery Research Biologists (AIFRB). He died two weeks before his 99th birthday after a long and distinguished career that received less attention than it deserves.

Albert was born in Nowata, OK, December 12, 1910. His formal education includes a high school diploma from John H. Reagan High School, Houston, TX, 1928, and a Bachelor of Arts Degree in Biology from Rice Institute, Houston, TX, 1933. The Great Depression caused Albert to halt his graduate studies at Rice to provide family support by going to work.

Albert's amazing and varied professional career began as a marine biologist with the Texas Game, Fish and Oyster Commission in Rockport, TX, from 1935 to 1939. He then served as a Fishery Biologist with the U.S. Fish and Wildlife Service (USFWS) from 1939-1942, two years of which was spent studying the Alaskan salmon fishery. With the outbreak of war with Japan in 1941, Albert was transferred to New Orleans, LA, to become a member of the team studying the Gulf shrimp industry. In keeping with the war sentiment, Albert transferred his civil service position to the Naval Air Station in Corpus Christi, TX, 1942-1944, where he served the Gyro Instruments and Graphic Arts Divisions. This experience accounts for my surprise of Albert's great knowledge of scientific instrumentation and his ability to design and modify instruments for research.

Again, Albert deferred his interests to assist the family's mercantile business in Rockport, as manager of the seafood portion of the enterprise where he oversaw the leasing, planting and harvesting of a 100 acre oyster lease in Aransas Bay – the largest oyster farm in Texas at the time. He served as Mayor of Rockport during this time, but his absence from the scientific field did not last long. In mid-1946, Gulf Oil Corporation sought Albert's assistance in conducting their investigation of allegations that petroleum activities in coastal Louisiana were responsible for massive oyster mortality in that state.

I first met Albert Collier in February of 1947, at LSU, while he was recruiting his small three member research team. He convinced me to join his team since it was only a six-month job and I could still start medical school in the fall of 1947, as planned. The "six-month job" lasted until August of 1950. While working on the Louisiana oyster problem, Albert was the leader in two landmark biological discoveries. First, he was one of three investigators that independently discovered that an unknown protistan parasite (*Dermocystidium marinum* – now known as *Perkinsus marinus*) was the cause of the abnormal oyster mortality. His second significant contribution during this period was the elucidation of the role of "dissolved organic matter" in the nutrition and other activities of marine organisms.

In late 1950, Albert joined the newly established USFWS Laboratory in Galveston, TX. In a short time he became the Director. As Chief of USFWS Gulf Fishery Investigations, he provided the leadership and stimulus for another important scientific discovery; this time for providing indisputable evidence that the marine dinoflagellate, *Gymnodinium breve,* was the cause of the fish-killing phenomenon in the Gulf of Mexico known as Florida Red Tide. In 1956, when Texas A&M University decided to increase its presence in Galveston, the Oceanography Department recruited Albert to launch the A&M Marine Laboratory. At this time, Building 311, Fort Crockett, was a long-neglected facility infested with rats, roaches and pigeons. Despite poor institutional funding, he was able to obtain NSF funding to transform the weather-beaten World War II building at Fort Crockett into a respectable research and educational facility. I am still amazed that he accomplished so much with so few resources. There was no money for office furniture (Albert's desk was built from plywood) and the building was not air-conditioned until he obtained building renovation funds from NSF.

Albert's reputation as a "can do" builder of marine facilities led Florida State University (FSU) to invite him to become Director of its Oceanographic Institute. Thus, in October of 1962, Albert took his research team, except Sammy Ray, to Tallahassee, FL. Until his retirement in 1976, as Emeritus Professor of Biology, Albert was heavily involved in teaching and research in Marine Biology and Oceanography at the undergraduate and graduate levels. He directed the work of several graduate students (thirteen Masters and six Ph.D.'s awarded). During this period he was also heavily involved in research related to underwater warfare for the U.S. Navy. In addition, he served as Chairman of the Committee for Naval Research that reviewed and evaluated research proposals. Following retirement from FSU, Albert served as Visiting Scholar at the University of Arizona in Tucson, AZ, for three years. He was active in marine biology centered in the Gulf of California. His notable achievement at this time was the publication of a manual of sea animals of the Gulf of California, which was illustrated with 150 of Albert's pen and ink drawings. In 1982, he retired to Green Valley, AZ.

Albert Collier had a passion for education, and he deeply appreciated the positive role that "good" teaching plays in one's life. An example of his passion for education was recorded in a letter written to W. F. Thompson in 1956 after reviewing the draft articles of incorporation for the AIFRB: Collier noted, "In the case of education standards, I would like to see the requirement for schooling in the liberal arts

spelled out. If our profession is to rise above the technician category, and its members are to represent themselves and their organizations as they should, a broad and solid academic background is essential". Another indication of Albert's love of education is noted in his acceptance speech on the occasion of his induction into Texas Hall of Fame for Science, Mathematics and Technology, January 20, 2003. Albert Collier: "As I ponder the course of the professional career that brings me here, I am awed by the ups and downs, the sharp rights and lefts, and more u-turns than I care to recall. I wonder what carried me through all of that. The answer is good teachers." Then Albert proceeded to name specific teachers at each level of education and their specific contribution to his development from elementary school through college at Rice University.

Albert was a rare example of an individual that was successful in an "academic situation" without the benefit of the "academic union card": The Ph.D. degree. Unfortunately, the lack of this academic credential made him vulnerable to academics with Ph.D.s who were ready to take over his creation. Fortunately for Albert, however, there were always new scientific and academic endeavors in need of his perseverance and creativity to "breathe life" into, whether it be an infant or struggling project. Albert was willing to accept the challenge of difficult projects that most seasoned or "high profile" scientists would reject because of either low personal compensation or inadequate support to successfully achieve the proposed objectives. Because of his successful scientific and academic accomplishments, he was often addressed as "Dr. Collier". This reference resulted in the quick response: "I don't have a Ph.D. degree". Recipients of this denial were often shocked to learn that one lacking the Ph.D. degree could make as significant scientific contributions as Albert Collier.

Albert is survived by two daughters, Judith Collier (Durbin) of San Antonio, and Janie Collier (White) of Rockport, his second wife, Marie Jacobson Collier of San Antonio; 4 grandchildren and 7 great-grandchildren. Albert's remains rest peacefully over the oyster bed were he began his career 75 years ago.

Sammy M. Ray

President's Message...Continued from page 1

portal will take place over the coming year thanks to Past President Dave Bushek's tireless efforts. We owe Dave a debt of thanks for helping to make the portal ever easier to navigate. High on the list, as well, is the procurement and installation of an accounting program that will be integrated with the Web portal and assist Chris Davis, our Treasurer, to streamline our accounting and billing procedures. Thanks to all of our other Committee Chairs for their work over the last year - without their continued dedication NSA's business could grind to a halt. I also want to extend my appreciation on behalf of the NSA membership to outgoing members of the EXCOM for their service; Ryan Carnegie (2007-2010 Member-at-Large), John Ewart (Secretary), and Bob Rheault (Vice President). I want to take this opportunity to welcome incoming EXCOM members Maureen Krause (Vice President), Marta Gomez-Chiarri (Secretary) and Dan Cheney (Member-at-Large). Opportunities abound to serve NSA and it is vitally important that members work for the betterment of NSA by getting engaged in our governance.

Planning for next year's Annual Meeting in Baltimore is well underway. Sessions topics have been identified and fundraising is ongoing to help support a number of sessions. More information on the events planned for this meeting can be found on page 3 of this *Newsletter*. At this year's meeting I was struck by the vitality of NSA members and the expertise they possess in a wide variety of subject areas. Consider using your expertise to promote and support our upcoming meeting by contributing to, or developing a special session: contact either Sandy Shumway or me for more information.

As I begin the second year of my term, I am honored to continue to serve our Association. Although declining budgets in many parts of the country may create hardships for members and make their continued support of NSA more difficult, NSA remains in good financial shape. We begin a new decade at a time when the challenges confronting our shorelines, oceans, and other aquatic environments appear ever more frequently. As I write, crude oil flows unabated from the seafloor in the Gulf of Mexico, and a huge oil slick is poised to wash ashore onto the Louisiana coast. This disaster will certainly threaten a struggling shrimp fishery and shellfish beds, as well as critical habitat for many other plants and wildlife.

Because of such events, I urge all members of NSA to remain involved in the wide range of local, regional, and national issues that impinge on shellfish and shellfisheries. I am speaking to students working their way towards a degree, older members well along in their careers, and retired members alike when I suggest that working on issues within your range of expertise will effect positive change, bring tremendous personal satisfaction, and provide real benefits to our Association, and to society. Volunteerism remains a vital activity contributing to the fabric of our society and NSA members have so much to offer. NSA continues to play an important role as a conduit for critical information and expertise, whether it be through our publications, Web site, or annual meetings. The strength of our Association is in our membership and we must redouble our efforts to ensure that NSA continues to fulfill its mission.

Joth Davis
President

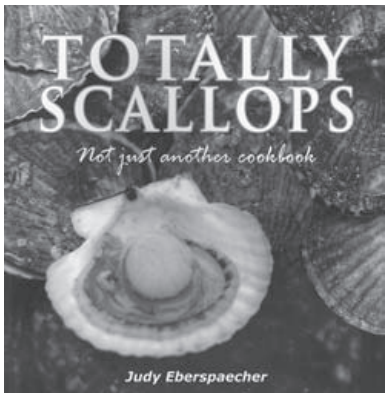
Book Review

TOTALLY SCALLOPS Not just another cookbook.
Judy Eberspaecher. KiMAGIC 2009.
ISBN 978-0-9783549-9-2. U.S. $39.95

Cookbooks are fun and it's always a treat to find a new way to cook your favorite shellfish. This book is, as the title indicates, all about scallops. Some of the recipes I've tried, others I look forward to preparing.

This appears to be a 'self-published' book and as such is reasonably well done. The author notes that she began collecting scallop recipes over 20 years ago and she certainly took the project to heart, joining a commercial scallop cruise for a first-hand look at the process!

The book begins with a stylized global map that gives the locations of recipe origins with associated page numbers. The focus is heavily on recipes from the east coast of North America and Europe. The author notes that the dream of writing the book began in the 1980's and the result is clearly a personal account of a long-time passion for scallops and travel. It also seems to be an outlet for the author's and friends' photographs, some scallop-related, some not; some striking, some not.



The Introduction (written by the author's husband) is well written and interesting, although I would argue with his assessment that the taste of farmed scallops cannot compete with wild ones. There are minor errors throughout the book, beginning with the distribution of scallops along the coast of the eastern U.S. being from the northeast to North Carolina; and the statement that, of the ~350 species known, 'many are edible'. I am unaware of any inedible scallops. There is also a notation that "except for the Calico scallop, as a whole, the diverse North American populations are stable" – tell that to the baymen or anyone else who seeks bay scallops!

I would have chosen a more appetizing and 'in focus' picture for the cover, and would have put the 'wine with scallops' (also written by the author's husband, "a wine writer, judge, educator and taster") at the back of the book, not as the first chapter (much as I like wine with scallops). This section is a short and concise guide to wine and scallops and provides several good tips for pairings. Rule #2 should be memorized: "Drink any wine you like; any color, any country and any grape will do as long as you enjoy it".

The book is 8x8 inches with an interesting layout. The right pages are all full page photographs and the left pages contain a recipe, and most also contain a small, usually scallop-related photograph with a factoid or short statement. In some instances, the pages are linked and logical, e.g. the recipe for curied scallop cakes, a picture of the cooked dish, and a small photo of a scallop being shucked and a description of the process. There are, however, many disconnects. It would have enhanced the book if more of the paired pages were linked with regard to content, e.g. Isle of Man garlic scallops might have shown the king scallop or the fishing fleet rather than a picture of a steam railway, or the page facing the pasta seafood salad recipe showed the salad and not a nearly unidentifiable picture of surfers (or snorkelers?), or 'scallops with a bourbon touch' (New Orleans) with a facing picture of tabasco sauce had a small related photo instead of the sign welcoming tourists to Digby, Nova Scotia, or scallop yam chowder (Massachusetts) wasn't linked with a picture of an Alaskan weathervane scallop. The same disconnect is true for many of the small photos and the text that accompanies them. For example, on p.138 there is a picture of a cooked scallop dish - unidentified - accompanied by two sentences regarding the possible need for a license to harvest scallops. A little rearrangement and better editing would have provided a more cohesive effort.

I found no typographical errors, the text for the small photograph is repeated on p. 26 and p. 150, the statement on p.154 regarding the price of scallops is very confusing, and the photo on p. 12 is repeated on p. 158. Even taking into account my knowledge of scallops, I failed to find what an educated reader would consider any 'little known facts about scallops' as advertised on the cover.

The overall quality of the photographs is varied. Some, e.g. the fleet of scallop draggers from Digby and the many of the tourist-scenic photos, are outstanding, others not really. I found the 'labels' on the large photographs to be very irritating - very small type and often nearly unnoticeable.

Why so much discussion regarding the aesthetics and accuracy of the book? - because a cookbook of this genre should be visually appealing, as well as informative and factually correct, especially for the asking price of $39.95.

All of this being said, the recipes (almost) all sound grand and I am looking forward to trying the new ones. I'll be guarding my copy!

Sandy Shumway
University of Connecticut

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www.shellfish.org

Oil in the Gulf

Despite images on the nightly news depicting oil-covered birds and other larger fauna, the general public often has limited understanding of the impact of oil spills on coastal species. Ed Cake, a past president of NSA, was recently interviewed by *Food Safety News* about the impact the British Petroleum Deepwater Horizon accident will have on oyster populations in the Gulf of Mexico. The following is an excerpt from his interview reprinted with permission from the publisher.

In Cake's estimation, the oil will likely have a number of impacts on oyster resources when the slick reaches the coastal waters of Louisiana, Mississippi, and Alabama.

"Remember," Cake says, "a 3-inch oyster can filter up to 8 gallons of water an hour while feeding and everything in the water column surrounding the oyster can adversely affect it. All the particles, including oil droplets, that are in the range of 3 to 12 microns (millionths of a meter) will be ingested by the filter-feeding oysters.

"Those ingested oil droplets and other hydrocarbon residues in the digestive gland of the oysters may cause lesions in the digestive gland of oysters and lead to their death or to a reduction in their reproductive capabilities," Cake adds.

"The oyster's only hope is to tightly close its shells and live off internal body reserves until and unless the oil and its harmful components leave the area. If the oil remains for any length of time, the oyster may die outright for exposure to the oil and its components or succumb when its internal reserves are exhausted or when respiration ceases.

"Oysters in shallow waters may become coated with floating oil at low tide and/or during rough sea conditions, thereby killing or stressing the oysters. They, too, would be unusable for harvest. The coatings of oil will also prevent new oyster spat from settling on shells or other suitable substrates in oyster-growing areas. So several generations of oysters may be lost.

"That leaves the soluble fractions that are already in the water column from the spilled oil. In large concentrations, toxic components of crude oil such as benzene and toluence can kill oysters and will kill oyster larvae.

"Although oysters that are confronted with oil may survive the initial spill and its various components, they may form tissue lesions in their digestive gland in response to the digested oil. Those lesions may result in the death of the affected oysters and/or prevent natural reproduction (spawning); thereby causing a loss of future oyster spat sets (new, young-of-year oysters).

"Depending on when and where and how much of the toxic oil dispersant chemicals (e.g. detergents) are applied to 'make the spill go way', those chemicals may harm adult oysters as well as planktonic oyster larvae in the water columns. Those dispersants also enable the crude oil components to 'dissolve' in the water columns, thereby causing additional problems for the oysters and their larvae as they filter feed."

Cake provided *Food Safety News* with this list of oyster-related commercial and environmental problems that might result from the BP oil spill hitting the Gulf Coast:

- A "precautionary" shutdown of the Gulf oyster industry.
- The on-bottom oyster stocks could be lost.
- Consumer resistance to eating Gulf oysters out of fear of contamination or because of an "oily" taste.
- The fouling of shell substrates from the loss of future spat sets.
- An alteration of the organoleptic qualities of the Gulf oyster in taste, odor and texture that make them inedible.

For the complete transcript of Ed Cake's interview visit www.foodsafetynews.com/2010/05/-make-a-mistake-about/.

Nominations Requested for 2011 Election

The NSA Elections Committee (Dave Bushek, Joth Davis and LeRoy Creswell) congratulates and welcomes Maureen Krause (Vice President), Marta Gomez-Chiarri (Secretary) and Dan Cheney (Member-at-Large) as newly elected members of the Executive Committee. With the 2010 election completed, the Elections Committee is busy soliciting nominations for our 2011 vacancies. Joth Davis, Maureen Krause, Chris Davis and Kim Reece will be completing their terms on the board at the 103rd Annual Meeting in Baltimore. Thus, we are soliciting names of members to fill the ballot for the positions of President-Elect (2 yr term), Vice President (1 yr term), Treasurer (3 yr term) and Member-at-Large (3 yr term). Terms for these positions will begin immediately after the Annual Business Meeting on March 30, 2011. Details of the duties required are provided in our Constitution and By-Laws, available on our Website at www.shellfish.org/about.htm. The Elections Committee will review all nominations and propose individuals for each office for approval by the Executive Committee. Once a slate of candidates is approved, the ballot along with a brief biography and statement from each candidate, will be distributed to all members. Any member in good standing can run for office. Serving as an officer is a great way to help out an association you love, so step up today. If you wish to nominate someone other than yourself, please check that they are willing and able to serve before nominating them. Nominations should be sent to David Bushek, Chair of the Elections Committee (bushek@hsrl.rutgers.edu).

Help the NSA Recruits Celebrate 20 Years!

The NSA Student member organization, the Recruits, will be celebrating its 20th Anniversary at the Association's 103rd Annual Meeting. As an NSA member, you know how important students are to our Association, and there's a good chance your first NSA experience was as a student. Several events and displays at next year's meeting will recognize the efforts and activities of the Recruits and the Student Endowment Fund, and your contributions to these efforts are essential. If you would like to write a few sentences about how NSA's support for students has influenced your career, we'd love to hear from you.

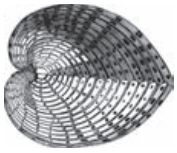
We are soliciting photographs and "special" NSA Auction treasures for display at the Annual Meeting in Baltimore, next March. Please send items to Maureen Krause, a founding member of the NSA Recruits (biomkk@hofstra.edu).

See you in Baltimore,

Maureen Krause
Vice President

Please consider contributing items such as:

- NSA Auction photographs (embarrassing or otherwise)
- Pictures of Nelson and Gunter Award winners
- Photos or treasures from the NSA sales booth
- Photographs and information about Castagna and Carriker Award winners
- "Special" and treasured auction items you're willing to display.
- Photographs of other NSA student activities (dancing, anyone!)



Line art appears courtesy of FCIT http://etc.usf.edu/clipart

Upcoming Events

The Coastal Society 22nd Annual Meeting, "Shifting Shorelines: Adapting to the Future". June 13-16, 2010, Wilmington, NC, USA. For more information visit http://www.thecoastalsociety.org/conference/tcs22/index.html.

World Congress of Malacology: July 18-24, 2010, Phuket, Thailand. For more information, registration and abstract submission visit http://www.wcm2010.com or http://www.ucd.ie/zoology/unitas/.

Second International Scleronchology Conference: July 24-28, 2010, Mainz, Germany. Visit http://www.paleontology.uni-mainz.de/ISC2010/ for more information.

Aquacultural Engineering Society Issues Forum: August 18-19, 2010, The Hotel Roanoke and Conference Center, Roanoke, VA, USA. See http://www.recircaqua.com for more information.

Eighth International Conference on Recirculating Aquaculture: August 20-22, 2010, The Hotel Roanoke and Conference Center, Roanoke, VA, USA. Visit http://www.recircaqua.com for more information.

Sixth International Symposium on Aquatic Animal Health (ISAAH-6): September 5 - 9, 2010, Tampa Marriott Waterside Hotel, Tampa, FL, USA. For information visit http://aquaticpath.epi.ufl.edu/isaah6.

Aquaculture Europe 2010: October 6-8, 2010, Centro de Congressos da Alfândega, Porto Portugal. For more information visit www.marevent.org.

Fifth National Conference and EXPO on Coastal and Estuarine Habitat Restoration: November 13-17, 2010, Galveston Island Convention Center, Galveston, TX. For more information visit www.estuaries.org/conference/.

ICSR '10, International Conference on Shellfish Restoration: November 17-20, 2010, Doubletree Guest Suites, Charleston, SC, USA. For more information visit http://www.scseagrant.org/content/?cid=297.

2010 Northeast Aquaculture Conference and Expo (NACE): December 1-3, 2010, Radisson Inn, Plymouth, MA, USA. For more information contact Joe Buttner (jbuttner@salemstate.edu) or Craig Hollingsworth (chollingsworth@umext.umass.edu).

Delaware Estuary Science and Environmental Summit, Connections - Land to Sea, Shore to Shore & Science to Outreach: January 30-February 2, 2011, The Grand Hotel, Cape May, NJ, USA. For information visit www.DelawareEstuary.org.

National Shellfisheries Association, 103rd Annual Meeting: March 27-31, 2011, Sheraton City Center Hotel, Baltimore, MD, USA. For more information visit www.shellfish.org.

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If you would like to announce a meeting, conference, workshop or publication that might be of interest to NSA members, please contact the *QNL* Editor, Paul Rawson (prawson@maine.edu).

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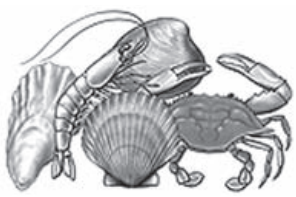

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