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The LIBRARY Lazarette Gazette

NEWS FROM

The University of Texas at Austin
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Director's Report



It is a great privilege and pleasure to announce the establishment of *The Laura Randall Schweppe Endowed Lectureship in Marine Science, Port Aransas*. We are deeply appreciative of our MSI Advisory Council member, Dr. H. Irving Schweppe, Jr., his daughters Anne Schweppe Ashmun and Jane Venable Schweppe, and his grandchildren Laura Randall Schweppe Ashmun and Stuart Whitaker Ashmun, Jr. for this very generous gift. Interest from the permanent endowment of \$100,000 will provide funds for travel expenses, honoraria, and other administrative costs to support a Visiting

Scientist/Lecturer series at the Marine Science Institute. These funds will allow us to bring in acclaimed experts in various aspects of the marine sciences. These experts will provide public and in-house lectures and spend time with students, faculty, and other staff to enhance our educational and research activities. Some of the visiting scientists may also extend their visits at UTMSI and participate in collaborative research or educational projects with UTMSI scientists. This program will be an excellent extension of the *Critical Issues Seminars* that Dean Rankin and the College of Natural Sciences have funded as an extension of our 50th Year Anniversary Celebration.

The endowment is in memory of Laura Randall Schweppe who left a most positive impression on all of those people whose life she affected. A gift related to marine science and the sea seems particularly appropriate to her memory. Laura Randall Schweppe was born and raised in Galveston and her grandfather, Edward Randall, Sr., was a Professor of Medicine at U.T.M.B. and Chairman of the Board of Regents in the 1930's. Laura Randall Schweppe's father, Edward Randall, Jr., was also a Professor of Medicine in Galveston. Recently Anne Ashmun related how her parents started visiting Port Aransas in the 60's. They fished with the senior Farleys and stayed at the Tarpon Inn. During those visits to Port Aransas in the 60's, Laura Randall Schweppe and her daughters explored spoil islands and St. Joseph Island, and keyed sea shells at every opportunity. She extensively photographed the birds of the area. We are highly honored that the Schweppe family has chosen this endowment in honor of Laura Randall Schweppe as a means of sharing and memorializing their cherished family experiences in and by the sea in Port Aransas.

Our Marine Science Advisory Meeting at the end of March was successful and enjoyable. On behalf of Dean Rankin, Ben Vaughan, and myself, I thank all of our Advisory Council Members for their attendance, participation, and support. It was an exciting event with the announcement of the Perry R. Bass Chair in Fisheries and Mariculture and the designation of Connie Arnold as the first recipient of this Chair. We are gratified that Chancellor and Isabella Cunningham were able to attend our social event on Friday evening and that President and Priscilla Flawn were able to participate in the meeting before his term ended as President ad interim. We were honored by the attendance of State Representative Gene Seaman, and also of State Senator Carlos Truan who was able to attend the Saturday morning session. We are very grateful for Representative Seaman's strong support as exemplified by his generous personal donation to our student scholarship fund while attending our meeting.

The first two Critical Issues Seminars by Drs. Anderson and Karl had good attendance with interested audiences and many questions about the Red Tide and El Niño, respectively. The seminar by Dr. Anderson was done in conjunction with the Red Tide Workshop that was held at UTMSI on April 17—18. In addition to his public seminar on El Niño, Dr. Karl presented an informal seminar during the day and spent time discussing science with the students and faculty during his visit at UTMSI. Both events were successful and we are glad that the visiting scientist program can continue. We have scheduled another *Open House*, Saturday, May 23. The last one held in 1996 was a major success and we look forward to even a better one this year. *Open House* Chairman Ken Dunton and other committee members are doing a great job of organization and promotion. (A special color flyer is enclosed with mailed copies of the *LazGaz*.)

Congratulations to Ron Benner, who has been approved for promotion to full professor effective the first of September. Ron is one of our *stars* at MSI, who is internationally known for his research on the composition and activity of dissolved organic carbon in the world's oceans. Congratulations also to Assistant Professor Ellery Ingall who was recently selected by the College of Natural Sciences to receive this year's *Teaching Excellence Award* for the Department of Marine Science. —Wayne Gardner

Attaboys

■ Mike did a fine job with plumbing the UV sterilizer in my lab the other day. Thanks.
(From Lee Fuiman to John Shaw and John Thompson regarding Mike McGill)

■ Thanks for the efforts made by your crew to address the water supply to the outside tanks. The situation is much improved. Thanks especially to Mike McGill for his idea of putting risers to better the circulation in each tank.
(From Tony Amos to John Shaw and John Thompson regarding the maintenance crew and Mike McGill)

■ Kathy Quade was nominated by Director Wayne Gardner to receive an employee *excellence* award in the College of Natural Sciences. The *LazGaz* understands some very complimentary remarks were made at a high level in Austin concerning Kathy.

Abstract

SENSORY AND BEHAVIORAL ONTOGENY OF THREE SPECIES OF SCIAENIDS AND THE IMPORTANCE OF HABITAT

Kirsten R. Poling, Ph.D.
Supervisor: Lee Fuiman

The sensory and behavioral development of three species of sciaenid larvae with different patterns of habitat use were examined. Atlantic croaker, *Micropogonias undulatus*, larvae spend the early part of their development offshore, and even after arriving inshore spend relatively little time in seagrass nursery habitats. Red drum, *Sciaenops ocellatus*, larvae occur inshore throughout most of the larval period and utilize seagrass nursery habitats, although not exclusively. Spotted seatrout, *Cynoscion nebulosus*, larvae develop entirely inshore and are strongly associated with seagrass nursery habitats. Changes in the visual system were examined by measuring photoreceptor densities, theoretical acuity and theoretical sensitivity of the eye.

Changes in the mechanosensory system were examined by counting neuromasts and documenting lateral line canal formation. Behavioral development was assessed by examining response to an anti-predator stimulus. Visual and mechanoreceptive attributes of these three species differed most near the end of the larval period when habitat differences are most pronounced.

Atlantic croaker had more visual specializations than the other species with large eyes, more rod (low-light) photoreceptors and higher sensitivity (summation) of photoreceptors. Seatrout had more abundant neuromasts but poorer visual measures relative to the other two species. Red drum were intermediate in sensory morphology, with neuromast numbers that were slightly higher than both species of a portion of the early larval period and visual attributes that were slightly better than seatrout during the late larval period. Use of these sensory systems for anti-predator behavior roughly corresponded to differences in the development of sensory structures, with Atlantic croaker depending most on vision, red drum depending more on mechanoreception, and seatrout depending almost entirely on mechanoreception. Behavioral development also relates to the habitats occupied by each species. Between offshore and deep water habitats after settlement, croaker inhabit primarily open water habitats where vision is unobstructed. Seatrout and red drum inhabit more shallow, structured habitats where seagrass can reduce visual contact between predators and prey and therefore rely more on mechanoreception to detect predators.

Thus, development of these three species differs so that sensory capabilities are most appropriate for the habitats that each species predominantly occupies.

Students

Greetings from Kirsten Poling — Hi to everyone in Port Aransas! I really love being so close to the mountains and TREES, although being three hours from the beach is certainly a big change! All that time in Port A made me really grow used to being able to escape to the water's edge. I actually find myself getting a little nostalgic for certain things in Port A, especially the seafood. The job here is going well. I am studying brain development in zebrafish, which is also a big change from "real" fish like redfish and seatrout, and you certainly can't eat the leftovers! They're a lot easier to keep though. I hope all is well with everyone there.

—Kirsten Poling

Kirsten Poling completed her work at the Marine Science Institute in May 1997, making her the first woman to receive a Ph.D from the Department of Marine Science. Kirsten came to the Marine Science Institute from Boston University where she graduated with a bachelor's degree in biology and marine science experience at Woods Hole. She was especially interested in sensory biology and it took her little time to develop a complex and important research proposal on the role of the developing sensory systems in the ecology of larval fishes. Kirsten's ambitious, multi-faceted proposal included morphological and behavioral studies of three sensory systems and how they changed throughout the larval period in three closely related species (red drum, spotted seatrout, and Atlantic croaker). Along the way, Kirsten presented her work at various international meetings and was always praised for the quality of her work and her fine presentations, including honorable mention for a best student paper award. Kirsten's unique combination of interests in sensory structure, function, development, and ecology earned her several offers for postdoctoral positions, one of which she accepted at the University of Virginia.

Lauren Clark has been awarded a fellowship by the Dreyfus Foundation. Dreyfus Fellowships are awarded to graduate students whose research involves chemistry and some other field of study, including interdisciplinary work with a substantial chemistry component. Lauren was one of three recipients at The University of Texas at Austin this year. Her research on dissolved organic phosphorus, under the supervision of Ellery Ingall, clearly qualifies her for this honor. Congratulations, Lauren!

Christine Ritter has been awarded a Tuition Fellowship by the Office of Graduate Studies. These fellowships are given to a small and select group of graduate students at The University of Texas at Austin. Christine's research is supervised by Paul Montagna. Congratulations, Christine!

—Lee Fuiman, Graduate Adviser

Egabrag Wocs

NAVY DOLPHINS AT MSI

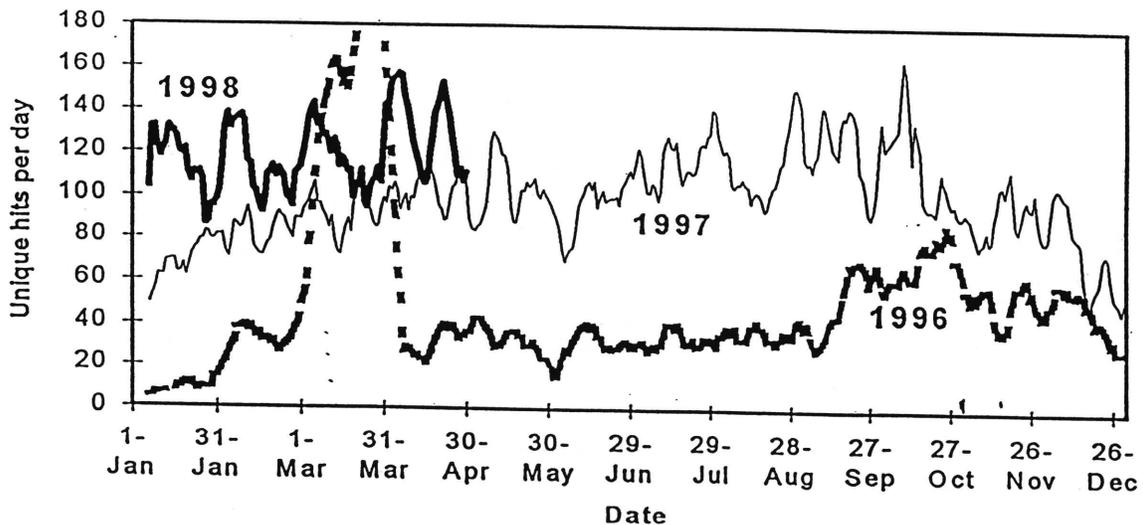
Talk about *carrying coals to Newcastle*, isn't *carrying dolphins to Port Aransas* about the same? By now you have probably read all about it—in the *South Jetty*, seen it on TV, or witnessed it in person here at MSI. Five dolphins were flown in from San Diego by the Navy, transported from NAS Corpus Christi to MSI via large helicopters, wheeled in their small vat-transporters to the *R/V LONGHORN*, lifted by the ship's crane to small boats and deposited in portable pens in the MSI Boat Basin—all so the dolphins could participate in exercises with the Navy mine sweepers whose homeport is Ingleside. The *Navy Dolphin* visit promises to be like *Hurricane Celia*—a never ending source of comments, stories and anecdotes. The Navy started by ticking off the P. A. Fire Department—by holding their practice helicopter landing so far ahead of the scheduled time that the Fire Department missed it (after being told how essential their presence was). My favorite part of the entire episode was the talk the senior Chief Petty Officer gave to the Port Aransas third graders. The Navy was around long enough for us to learn that Chief Lehniter was *The Man*—a tough guy in control and not to be messed with by *anybody*. The tough Chief gave a great talk to the 47 young third-graders. Part of it was to the embarrassment of several Navy *Rambos* (the divers were all great guys—but several in appearance *Stallone-clones* with dolphins tattooed on their calves). In the middle of the Chief's talk a boat load (they had a Macho Boat—a semirigid inflatable with two 250 hp. outboards) pulled up to the dolphin pens with much revving of motors and frothing of seawater. Just as a huge Rambo (I am certain no one but the Chief dared mess with him) stepped out on the dock, the Chief conducted all 47 third-graders in a loud *ooooooooohhh—aaaaaahhhh*. And a very small girl was coached to ask, *are you a diver?* And the best act the dolphins did was not at the direction of their trainers. Somehow one of the Navy men fell (or maybe was pushed) into the water with a loud splash. There was loud laughter from the seamen in the vicinity. All 47 third-graders craned their heads to get a better view, curious to

know what had happened; five dolphins did exactly the same, sticking their heads way out of the water and looking around, trying to see what was going on. With the Navy's entertaining and informative talks to the third-graders, to students from the middle-school, to P. A. Webelos Scouts and Boy Scouts, and their informal many friendly conversations with MSI employees and island residents and visitors alike, the Navy Dolphins truly became an island event. Sure, there were a few (very few) negative comments about keeping intelligent animals prisoner, but the Navy folks pointed out that the dolphins were capable of jumping out of their pens and leaving any time they wished. They quoted numbers of 70,000 releases at sea and only three instances when dolphins failed to return. Why did they ask to use MSI's facilities? Because the UT Boat Basin was the closest to the Gulf of Mexico. By having the dolphins at MSI they were able to cut down on the amount of time which the dolphins had to ride by small boat to the exercise area. This was also a good opportunity for MSI to return a favor. Thirty-five years ago the Navy provided helicopters for a MSI research project which involved dropping a large net (six different times) from a helicopter in Corpus Christi Bay.

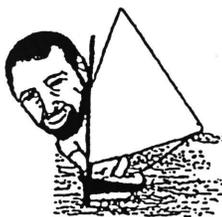
—John Thompson

MSI on the World Wide Web <http://www.utmsi.utexas.edu>

Visitors to the MSI Web Site



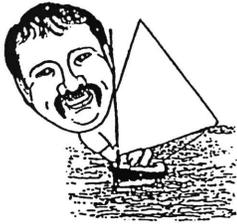
WEB SITE UPDATES CURRENT EVENTS



There have been quite a few changes on our Web site recently. Back by popular demand, MSI will host another OPEN HOUSE on Memorial Day (May 23, 1998). The schedule of events is posted on the web. The Press Clippings page has been expanded. *South Jetty* editor, Mary Judson, provided the text of several more stories about MSI and the *Corpus Christi Caller Times* newspaper has given us permission to link to their stories about the Marine Science Institute. Finally and at long last, we are able to provide up-to-the-hour graphs of today's environmental data at Port Aransas. This new link on the "Weather & Tides" page provides eight charts of the present day's air/sea temperatures, humidity, salinity, barometric pressure, wind speed, wind direction, wind gusts, and sea height, which are updated on the hour. This requires the use of Microsoft Excel. Check out all of these new items by selecting "What's New" on our home page.

—Lee Fuiman

Cruise Reports & Boat Operations



Cruise #98-706 — *R/V LONGHORN* departed Port Aransas at 0715 on 4/14/98 on a cruise to Baffin Bay, returning to homeport at 1630 on 4/15/98. This was a National Science Foundation cruise in connection with Dr. Buskey's Brown Tide Research. The work involves data collection along the ICW as well as in Baffin Bay. The Boston Whaler was deployed at three different sites along the way and used to trawl for plankton while the *R/V LONGHORN* was deploying the CTD and collecting water. Ed Buskey was aboard as Chief Scientist. Other members of the scientific party were Mark McCarthy, Hongbin Liu, Tracy Villareal, Peter Lavrentyev, Jose Bersano, Chris Collumb, and Archie Ammons. Chief Scientist Buskey reported, *Great Cruise. No problems. New cook did a good job.* —Noe Cantu

R/V KATY SCHEDULE — APRIL AND MAY

APRIL

01 0800-1200	SELWYN MS, DENTON	BARRY HANSTEIN
01 1300-1700	BURBANK HS, SAN ANTONIO	CINDY WEEHLER
02 0800-1200	DUNBAR MS, LUBBOCK	JIM CRITES
02 1300-1700	WM. JAMES MS, FORT WORTH	AVA MYERS
03 0800-1200	ST. MARY'S CATHEDRAL, AUSTIN	MISTY POE
03 1300-1700	SOUTHWEST TEXAS STATE UNIVERSITY, SAN MARCOS	DR. LACSON
04 0800-1200	TAMU, COLLEGE STATION	DR. OWENS
04 1300-1700	AUSTIN COMMUNITY COLLEGE, AUSTIN	DR. RODI
10 0800-1200	ELDERHOSTEL	JUDY REYNOLDS
10 1300-1700	ROOSEVELT HS, SAN ANTONIO	J. SVALBERG
11 1300-1700	AUSTIN COMMUNITY COLLEGE, AUSTIN	DR. RODI
13 0800-1200	BECKER ELEMENTARY, AUSTIN	PAT JOHNSON
13 1300-1700	LUEHRS JR. HS, BISHOP	ROBERTA JENKINS
14 0800-1700	GREGORY-PORTLAND HS, PORTLAND	KIM SCHMID
15 0800-1700	GREGORY-PORTLAND HS, PORTLAND	KIM SCHMID
16 0800-1700	GREGORY-PORTLAND HS, PORTLAND	KIM SCHMID
17 0800-1700	THE UNIVERSITY OF TEXAS AT ARLINGTON	DR. MCMAHON
18 0800-1700	NORTH MESQUITE HS, MESQUITE	PATTY LEARD
20 0800-1200	RIVIERA HS, RIVIERA	JOSEPHINE SMITH
20 1300-1700	ALLEN HS, ALLEN	GAYLE MITTERER
21 0800-1200	TAFT HS, SAN ANTONIO	SUE LANOUX
22 0800-1200	FLORENCE MS, FLORENCE	SHERI HILL
23 0800-1200	PHONEIX ACADEMY, LOCKHART	DOUG ALPIER
23 1300-1700	PRESBYTERIAN PAN AMERICAN SCHOOL, KINGSVILLE	ANGELA ALARCON
24 1300-1700	ALEXANDER HS, LAREDO	THOMAS MILLER
27 0800-1200	YOE HS, CAMERON	TONI LAFFERTY
28 1300-1700	JOURDANTON HS, JOURDANTON	CONNIE NIXON
29 0800-1200	ROCKPORT-FULTON HS, ROCKPORT	MARK DEHN
29 1300-1700	SEGUIN HS, SEGUIN	BETSY MARTIN
30 0800-1200	ST. GEORGE EPISCOPAL, SAN ANTONIO	RICHARD NUCCIO
30 1300-1700	IMMANUEL LUTHERAN SCHOOL, HOUSTON	DEL MAU

MAY

01 0800-1200	LEE HS, SAN ANTONIO	JEFF JACKSON
01 1300-1700	TEXAS WATCH, AUSTIN	GREG BRYANT
04 0800-1200	MACARTHUR HS, SAN ANTONIO	CAROLYN PESTHY
04 1300-1700	LIBERTY HILL HS, LIBERTY HILL	CAROLYN COBB
05 0800-1200	MARTIN MIDDLE SCHOOL, CORPUS	NANCY LONG
05 0800-1200	A. C. JONES HS, BEEVILLE	BENNIE BELEW
06 0800-1200	EANES ELEMENTARY, AUSTIN	LINDA HARRIS
07 0800-1200	BARTON CREEK ELEMENTARY, AUSTIN	ELLEN ARNOLD
07 1300-1700	MESQUITE HS, MESQUIRE	VIVIAN KINES
08 0800-1200	EANES ELEMENTARY, AUSTIN	LINDA HARRIS
08 1300-1700	LEE HS, SAN ANTONIO	JEFF JACKSON
11 0800-1200	CEDAR VALLEY COLLEGE, LANCASTER	RON BEECHAM
11 1300-1700	A. C. JONES HS, BEEVILLE	BENNIE BELEW
12 0800-1200	BARTON CREEK ELEMENTARY, AUSTIN	ELLEN ARNOLD
12 1300-1700	CEDAR VALLEY COLLEGE, LANCASTER	RON BEECHAM
13 0800-1200	LBJ HS, JOHNSON CITY	STANLEY PROCHNOW
14 0800-1700	ELDERHOSTEL	JUDY REYNOLDS
15 0800-1200	U. OF MARY HARDIN-BAYLOR, BELTON	STEVE ALEXANDER
15 1300-1700	DECATUR MS, DECATUR	STEVE WOODS
16 0800-1200	HOUSTON MUSEUM OF NATURAL SCIENCE	DR. WISE
18 0800-1200	EASTFIELD COLLEGE, MESQUITE	GAYLE WEAVER
19 0800-1200	FOREST TRAIL ELEMENTARY, AUSTIN	DEBBIE LAUDERDALE
19 1300-1700	OZONO HS, OZONO	RON CASEY
20 0800-1200	ROBSTOWN HS, ROBSTOWN	REBECCA SULLIVAN
23 0800-1830	MSI OPEN HOUSE	RICK TINNIN
26 0800-1200	LOHN ISD, LOHN	RICHARD MOORE
30 0800-1200	ST. GEORGE EPISCOPAL, SAN ANTONIO	RICHARD NUCCIO

Personnel

Linda Fuiman has been reclassified from Office Assistant to Senior Office Assistant. Linda has been working in Marine Education Services at MSI since May of 1990. Linda is the primary person for keeping the schedule and arrangements sorted out for the hundreds of classes and thousands of students visiting MSI each year, staying in the dormitories, using the Pier and Pier Laboratory, and going to sea aboard the *R/V KATY*. Among a great many other duties, she also conducts tours, and is especially good with the many younger student groups. Linda is the spouse of Research Scientist and Associate Professor Lee Fuiman. Congratulations to Linda and may you never become so completely a Texan as to lose your wonderful Scottish accent.

Tom Proietti has submitted his resignation and will be leaving MSI soon. Tom is accompanying his spouse to her new job in Virginia. Tom has worked in MSI maintenance since November of 1995. Last year he was reclassified from Building Attendant II to Maintenance Worker II. Tom's *can-do* attitude and sunny disposition will be missed by all. Besides, who will we get that not only knows how to set up the MSI display *but will actually do it* when Tom leaves?

Proud parents of:

JoAnna Jackson, daughter of Kim and Tommy Jackson, has been selected as a 1998 recipient of the *Jerry McDonald Good Citizen Award*. JoAnna is completing the eighth grade at Brundrett Middle School. Kim Jackson works in Ken Dunton's research program.

Dr. Peter Tytler arrived on May 4th to spend seven weeks of his sabbatical working with Lee Fuiman. Peter is on the faculty of the University of Stirling in the Department of Biological and Molecular Sciences. His area of interest is the physiology of marine fish larvae, especially aspects that relate to osmoregulation. Peter has found that some marine fish larvae are able to take up algal pigments through pinocytosis even before the stage of first feeding. His work at MSI will explore this same phenomenon in our subtropical species.

Dr. Patrick Louchouart has joined Ron Benner's laboratory as a Postdoctoral Fellow as of May 1, 1998. Patrick is from Canada and he and his wife, Caroline, have 2 children, a son, Noah, 6 years old and a daughter, Teva, 2 years old. Patrick's focus of research is the distribution and reactivity of terrigenous organic matter in the world's oceans. He will be participating on a cruise to the Greenland Sea this August to investigate the contribution of Siberian Rivers to terrigenous DOM in the North Atlantic.

Seminars

- Dr. Daniel M. Sigman, Princeton University, *The link between nitrate consumption and the nitrogen isotopes in the Southern Ocean*, April 13.
- Dr. Don Anderson, Woods Hole Oceanographic Institution, *The global problem of red tides and harmful algal blooms*, April 17.
- Dr. Nathalie A. D. Waser, University of British Columbia, *Nitrogen isotope fractionation and the nitrogen biogeochemical cycle*, April 20.
- Dr. Elma L. Gonzalez, University of California, Los Angeles, *The biochemistry of subcellular calcification in a coccolithophorid*, April 24.
- Dr. Jay A. Brandes, Carnegie Institute of Washington, *Isotopic perspective on the marine nitrogen cycle*, April 29.
- Dr. Todd Kana, University of Maryland, *Denitrification in estuarine sediments measured by membrane inlet mass spectrometry*, May 6.
- Dr. David Karl, University of Hawaii, *A sea of change: The effects of El Niño on the North Pacific Ocean*, May 7.
- Dr. Jim McManus, Oregon State University, *Geochemistry of barium in marine systems: Implications for using Ba as a paleoceanographic proxy*, May 20.
- Dr. John Hedges, University of Washington, *The global oxygen cycle: How carbon burial gives the earth a little breathing room*, Thursday, June 4, 7:00 pm, Visitors Center Auditorium.
- Dr. John Giesy, Michigan State University, *Status and trends of contaminants in and their effects on fish and wildlife of the North American Great Lakes*, Thursday, July 30, 7:00 pm, Visitors Center Auditorium.
- Dr. Daniel Pauly, University of British Columbia, *Can we sustain our global fisheries?*, Monday, August 31, 7:00 pm, Visitors Center Auditorium.

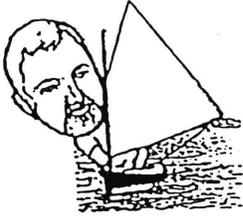
Trip Reports & Travel

Travel ending between March 21 and May 8

- *Terry Whittedge*, March 23, Galveston, Texas, present paper at second annual Coastal Issues Conference of Texas General Land Office, *Brown tide in Laguna Madre: Canary in the mine?*
- *Peter Thomas*, March 25—27, Sacramento, California, present two seminars at Bodega Marine Laboratory.
- *Peter Thomas*, March 31—April 3, Washington, D.C., serve as expert witness for Justice Department.
- *Tracy Villareal*, April 1—6, Boston, Massachusetts, attend Northeast Algal Symposium as co-convenor and present poster, *Rhizosolenia dynamics in the North Pacific Ocean*.
- *Rick Tinnin*, April 3—4, Lago Vista, Texas, conduct a teacher in-service.
- *Ed Buskey*, April 4—7, Boston, Massachusetts, attend master thesis defense at the University of Massachusetts in Boston of a student who worked on the Texas Brown Tide Bloom using antibody test partially developed at MSI.
- *Allen Davis*, April 8, College Station, Texas, to participate in research activities at the Aquaculture Research Center.
- *Dean Stockwell*, March 28—April 9, Seward, Alaska, participate in GLOBEC Cruise #2.
- *Paul Montagna*, April 7—9, Jupiter, Florida, to attend cruise planning meeting and program status meeting with continental shelf associates.
- *Rick Kalke*, *Keene Haywood*, *Steve Jarvis*, April 8—9, South Padre Island, Texas, to collect samples in the lower Laguna Madre.
- *Peter Thomas*, April 5—10, Washington, D.C., serve as expert witness for Justice Department.
- *Ellery Ingall*, April 5—12, Savanna, Georgia, to attend Southeast Coastal Ocean Research meeting and give presentation, *Biogeochemical dynamics of phosphorus: New insights from nuclear magnetic resonance*.
- *Rick Tinnin*, April 14—17, Las Vegas, Nevada, to attend the mid-year board meeting of the National Marine Educators Association held in conjunction with the National Science Teachers Association annual conference.
- *Paul Montagna*, April 15—19, New Orleans, Louisiana, to attend Estuarine Research Federation board meeting.
- *Joan Holt*, April 16, San Antonio, Texas, to meet with Mr. Pat Marince to finalize layout for state of the bay report.
- *Noe Cantu*, April 19—21, Galveston, Texas, to attend radar school.
- *Kevin Neely*, April 12—30, Dutch Harbor, Alaska, participate in cruise for the Southeast Bering Sea carrying capacity program on the *R/V MILLER FREEMAN* and the *R/V WECOMA*.
- *Tara Jo Holmberg*, April 20—May 11, Gulfport and Pascagoula, Mississippi, retrieval of biomoorings for MAMES project.

Weather Report for 23 March — 10 May 1998

23 - 29 MAR 1998	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	23	24	25	26	27	28	29	
AIR TEMP ... HIGH	70.1	71.2	73.7	72.8	75.5	76.6	75.7	73.7
AIR TEMP ... LOW	56.3	63.8	65.4	65.8	67.1	67.1	68.0	64.8
SEA TEMP ... LOW	61.7	--	66.7	--	68.4	--	70.7	66.9
RAINFALL TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<hr/>								
30 MAR - 5 APR 1998	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	30	31	1	2	3	4	5	
AIR TEMP ... HIGH	75.0	76.6	76.4	77.9	84.9	73.0	77.1	66.4
AIR TEMP ... LOW	69.8	60.4	55.0	65.4	63.3	61.7	63.6	62.7
SEA TEMP ... LOW	--	68.3	--	69.8	--	68.9	--	69.0
RAINFALL TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06
<hr/>								
6 - 12 APR 1998	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	6	7	8	9	10	11	12	
AIR TEMP ... HIGH	75.5	74.6	86.9	77.3	77.0	79.1	75.7	78.0
AIR TEMP ... LOW	67.4	68.7	69.8	63.3	60.6	70.1	69.4	67.0
SEA TEMP ... LOW	68.8	--	72.2	--	70.1	--	70.9	70.5
RAINFALL TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<hr/>								
13 - 19 APR 1998	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	13	14	15	16	17	18	19	
AIR TEMP ... HIGH	78.8	80.7	76.8	83.1	73.2	64.2	73.4	75.7
AIR TEMP ... LOW	70.7	71.2	72.1	72.8	63.8	57.7	58.4	66.7
SEA TEMP ... LOW	--	73.3	--	--	70.1	--	70.9	70.5
RAINFALL TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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20 - 26 APR 1998	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	20	21	22	23	24	25	26	
AIR TEMP .. (HIGH)	76.8	77.1	75.5	77.0	77.9	74.8	75.5	76.4
AIR TEMP .. (LOW)	66.3	63.3	59.9	61.7	68.9	69.2	70.3	65.7
SEA TEMP .. (LOW)	--	--	68.2	--	69.3	--	70.9	69.5
RAINFALL (TOTAL)	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
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27 APR - 3 MAY 1998	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	27	28	29	30	1	2	3	
AIR TEMP ... HIGH	76.1	75.5	78.0	77.3	78.6	78.4	82.4	78.0
AIR TEMP ... LOW	67.1	62.6	62.4	59.1	68.1	70.8	72.6	66.1
SEA TEMP ... LOW	--	68.9	--	69.7	--	73.4	--	70.7
RAINFALL TOTAL	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.08
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4 - 10 MAY 1998	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	4	5	6	7	8	9	10	
AIR TEMP .. (HIGH)	81.3	77.7	82.2	82.5	83.1	95.1	83.4	83.6
AIR TEMP .. (LOW)	72.3	72.3	72.5	73.7	73.7	74.8	69.9	72.6
SEA TEMP .. (LOW)	75.9	--	76.8	--	78.5	--	77.0	77.1
RAINFALL (TOTAL)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



The Navy dolphin visit may not have been the most important thing at MSI since the last issue of the *LazGaz*, but it certainly attracted lots of attention. In his column in the *South Jetty*, Tony Amos mentioned the Navy dolphins and commented on our own dolphins in Port Aransas and the splendid opportunity we have to observe them. Just now as I was thinking what I wished to say about it, and looking out my window toward the channel, here comes a large ship and alongside, no—not dolphins but one of Port Aransas' newest commercial enterprises, a "dolphin watching boat". They should get a sailboat instead. My daysailer/sloop *SOMETIMES* is small, but she has her own *log*, and there are nine separate entries concerning dolphins in the 47 times she has sailed since first being launched last July. For example: *Several broke right next to the boat, within a long arm's reach, always breaking water right next to where Warren and I were sitting, never anywhere else around the boat, some trailing and looking at us.* And: *Dolphin escort beyond belief, at least eight of them, close enough that the water sometimes hit me when they broke the surface, over and over for more than 30 minutes.* And: *Great exhibition by one dolphin which kept crossing the boat at an angle and coming high out of the water soon after passing beneath.* And just last Thursday, *One on starboard side close by and three together at the same time on the port side, nearest no more than three feet from the SOMETIMES.* All breaking the surface in unison. —John Thompson

