

MSI

...news from
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National Estuary Program for Corpus Christi Bay

It was recently announced by the U.S. Environmental Protection Agency that Corpus Christi Bay had been selected to be included in the National Estuary Program. Designation as a National Estuary can provide as much as \$5 million over a 3 to 5 year period to assess the health of the estuary system and to propose solutions to problems that are identified. Currently 17 estuaries participate in this program to enhance our country's entire bay and estuary system by creating a long-range management plan for each. Corpus Christi Bay was one of three estuaries selected this year out of the ten applications that were received. Tillamook Bay in Oregon and San Juan Bay in Puerto Rico were also selected.

The Corpus Christi Bay National Estuary Program (CCBNEP) encompasses the estuarine environment of 75 miles of Texas coastline and 12 member counties of the Coastal Bend Council of Governments. This area includes all bays in the Aransas, Corpus Christi and upper Laguna Madre systems as well as saltwater bayous. Within this area of 11,537 square miles, there is a population of more than 515,000 (1986 basis). The surface water area covered by the studies include more than 358,000 acres of saltwater and 48,000 in freshwater lakes. The bay system is famous for its recreational and commercial fisheries production which represents an estimated \$364 million yearly impact on the region and the port of Corpus Christi has the sixth largest ship tonnage in the United States.

The goal of the CCBNEP is for local, state and national governments, and other interested parties to create a comprehensive and coordinated management plan that will preserve and conserve the living resources, local and migratory, while permitting use of the non-living resources for the health and economic welfare of all. This goal is not different from other national estuary programs, but the problems of aridity, the extent of migratory endangered species, and the differences in estuarine characteristics are unique and require approaches not necessarily covered in other programs.

Current efforts to improve the water quality in parts of Corpus Christi Bay, the inner harbor and Nueces Bay will be examined for their effectiveness. The goal of the program for Corpus Christi Bay is to prevent water quality deterioration and to maintain or improve productivity where possible. Current wastewater pretreatment programs will be examined for effectiveness, as will dredge spoil disposal methods, in order to prevent possible adverse effects including turbidity.

Baseline toxics data, currently lacking in several areas, will be developed and analyzed in accordance with recent changes in state water quality standards and federal requirements.

Efforts to prevent human-induced wetland losses and control shoreline erosion around the Corpus Christi Bay system will be a goal of the management program. Land-use data will be useful in evaluating wetland losses, nonpoint runoff, toxics, nutrients and other pertinent issues. However, current land-use data are not presently available for the study area. The development or acquisition of these data may be identified as a project need of the management plan.

Some (but not all) of the problems that may be addressed by the CCBNEP are:

- *Freshwater inflows and related effects*
- *Habitat changes and losses*
- *Dredging and bulkheading*
- *Ambient water quality (toxicants)*
- *Pathogen contamination*
- *Eutrophication*
- *Changes in living resources*
- *Marine mammal die-offs*
- *Shoreline erosion*
- *Effects of local oil spills*
- *Circulation in bays and tidal exchange effects*

One of the main strengths of the National Estuary Program is the participation of local citizens and researchers. The committee structure also emphasizes consensus on the development of a list of priority problems and a comprehensive and holistic approach to management questions. The entire study area will be assessed for trends in environmental quality and proposed solutions will be prepared in the form of implementation plans.

--Terry Whitledge

Director's Report

Terry Whitledge deserves our thanks for the tremendous job he did in successfully spearheading the effort to have Corpus Christi Bay included in the National Estuary Program. Terry originated the idea for the first program in Texas--Galveston Bay, and he and Sammy Ray of TAMU put it together with help from Senator Bentsen and others. For the Corpus Christi program, Terry began his efforts back in the Spring of 1991; he has been a dynamo working toward this goal. Terry was involved in this effort from the original idea, and was the one who prepared the suggested invitation list for South Texas participants at the first organizational meeting. From the time of the first meeting until the nomination was sent to EPA was six

weeks. Terry's efforts included 13 talks to South Texas groups asking for support and resolutions of endorsement. He made presentations to such diverse groups as the Bishop Rotary Club, 4th Annual South Texas Water Conference at Corpus Christi State University, Year of the Gulf Lecture Series at the Texas State Aquarium, Southside Kiwanis, Port of Corpus Christi Authority, Annual Conference on Marine Research in South Texas Bays and Estuaries (at MSI), Corpus Christi Board of Trade, Environmental Quality Committee of the Coastal Bend Council of Governments, the Coastal Bend Geophysical Society, and the Corpus Christi City Council. Earlier Terry was our representative when now Governor Ann Richards was familiarizing herself with our bays and marine issues during her campaign. There were fourteen persons in attendance at that first organizational meeting; four of the fourteen could claim some ties with MSI. Gary Powell and Bill Longley, both of the Texas Water Development Board, are former students at MSI. (Bill Longley got his Ph.D. under Curly Wohlschlag and Gary Powell attended summer classes here.) Warren Pulich, also of the TWDB, first came to MSI as a post-doc with Chase Van Baalen, and was later a member of the research staff for many years. The establishment of the Corpus Christi Bay Estuary Program is a major positive step in the right direction for Texas. We are proud of the role Terry Whitledge and the MSI has played thus far in this development. And we look forward to participating in the work of this program.

--Robert S. Jones

Cruise Reports & Boat Operations

Cruise #92-595: gale winds climax successful voyage -- The NECOP cruise for Drs. Bill Wiseman, LSU, and Bill Boicort, University of Maryland, was completed in accordance with the cruise plan. The *R/V LONGHORN* departed Port Aransas October 24 and was on station for the first CTD cast at 28-54N/089-54W on the morning of October 26. 21 CTD stations were taken during the day with the last cast off Southwest Pass, Mississippi River, Louisiana. The first deployment of eight radio beacon drifter buoys was made off Southwest Pass, one of the buoy's radio signals failed shortly after deployment and the science party concluded that the housing probably leaked sea water into the case thus shorting out the radio and battery power pack. The *R/V LONGHORN* tracked the remaining seven buoys for the next 36 hours, establishing a current pattern off Southwest Pass. The next series was started off Baratavia Pass, Grand Isle, Louisiana, on October 28 and lasted until the morning of the 30th. A final series was conducted off Caminada Pass, south of Grand Isle, and retrieved midday of the 31st. The scientific party, less three personnel, and most of the equipment were off loaded at LUMCON (Cocodrie, Louisiana) late the evening of the 31st. Weather for the entire cruise so far had been calm. The *R/V LONGHORN* departed LUMCON at 1645 hours on the 31st. The weather forecast predicted a cool front for November 1--but no severe winds. By sunrise of the first of November the winds were SSW 15-25 and seas 4-6 feet. From here the next 36 hours were all down hill. Noon NOAA weather from Lake Charles, Louisiana, issued a weather warning of severe squalls with locally high winds. Local conditions had gotten worse with winds still SSW 25-35 and gusting, seas 6-10 feet. With a ship heading of 240 degrees this makes for a very rough ride. The squall line that was predicted hit about 1330 hours and winds shifted to NW 20-25 with heavy rains. Visibility was about 100 yards for almost an hour. Sea conditions started to improve with the wind shift but unfortunately the NW winds continued to increase. Over the next several hours winds increased from 20 to a sustained 45-50 with gusts to 65. We made a course change to WSW to improve the ride, but it's not a very good ride in any direction when seas are running in excess of 10 feet in height. By midnight the NW winds did lay and the rest of the trip back to Port Aransas was smooth. *R/V LONGHORN* arrived home at 1400 hours, November 2.

--Don Gibson

Letter from Dr. Wiseman -- (While wearing one of my other hats, I received the following kind words from Bill Wiseman, LSU Professor...editor)
Dear John: We just completed another successful and extremely pleasant cruise aboard the *R/V LONGHORN*. The boat was very comfortable. This was my first trip aboard her since she was stretched. The additional space is delightful. As always, the cheerfulness of the crew and their willingness to comply with any reasonable request from the scientists makes working on the *R/V LONGHORN* a most enjoyable experience. We look forward to the possibility of future cruises on your boat.

--Wm. J. Wiseman, Jr.

Small boat use October 24 -- November 6 --

JET - AIR BOAT -- Ken Dunton, 1 day.

JEFFERSON -- Ken Dunton, 1 day.

KLEBERG -- Scott Holt, 1 day.

R/V Katy --

October: 27 visiting class trips completed.

November: 24 visiting class trips scheduled.

ERF'95 Awarded to Corpus Christi

Corpus Christi has been selected as the site for the 1995 Biennial Conference of the Estuarine Research Federation (ERF). The Governing Board of ERF voted unanimously to select Corpus Christi after a presentation by Paul Montagna on October 30. The ERF conference usually attracts 500 scientists, managers, and policy makers interested in estuaries. The society is looking forward to having a meeting right on an estuary. The meeting is tentatively planned for November 5-10, 1995, at the Corpus Christi Marriott Bayfront. The conference will include plenary, concurrent, and poster sessions. To insure a collegial meeting, a welcome reception, aquarium reception, and dinner/dance will be held. The local organizing committee is headed by Paul Montagna, who is also primarily responsible for fund raising. Terry Whitledge is the co-convenor, and is also on the fund raising committee. Ken Dunton will be in charge of the scientific program, and will be assisted by Dr. Christopher Onuf of the U. S. Fish and Wildlife Service. Drs. Quenton Dokken and Wes Tunnel from Corpus Christi State University will also be assisting in organizing the conference. There is plenty of room for volunteers to join the local committee. If you are interested notify Paul Montagna.

--Paul Montagna

Egabrag Wocs

Padre Vignettes II -- The few (if any) who read *Effects of wind on water levels in the Texas Laguna Madre* (Volume XX, *Texas Journal of Science*) will not find a hint of the difficulty of obtaining regular tide data at Big Shell Beach and Murdoch Basin in the early sixties. It is still the far end of the earth, but doing the work now--with present equipment--would be a relative snap. We *tried* to establish a tide gauge on Big Shell Beach. We didn't have a four-wheel drive vehicle, but we did have a standard half ton 1960 Ford Pickup. We bought four extra rims and eight fat tires, added hub adapters, and cut out the front fenders so the tires didn't hit when you turned. The light little truck almost floated over the beach; but after the second time a wheel came off and passed us on the island road, we abandoned our eight-wheeler. Next we tried our Farmall Cub mowing tractor; it was so slow you had to camp out and return the next day. A new assistant was terrified of the coyotes howling around our camp and so helpless he was assigned only *camp duties*. He used all our drinking water washing dishes--thinking we would have to go back to civilization. To his dismay, we found a freshwater pond and stayed anyway. Bill Ogletree and I struggled for hours in the surf to swim out the tide gauge intake (half a whiskey barrel, weighted with concrete, connected to poly pipe)--back on shore we found, because of strong currents, the intake had already washed up. Eventually the beach tide gauge was abandoned (a piling we installed is still there). Finally, we went by boat to the Laguna Madre gauge and hiked across, carrying a stilling well/tide staff and a transit (I was elected to hold the tide staff in the surf). After the umpteenth hike across the island and back, this almost ceased to be fun. I remember a Miller Beer Can which we passed every time on our hike. Each night when we got back to the swing bridge, instead of my usual Pearl I wanted a Miller (note to HTO and the Texas Rangers--we only consumed the beer *after* we punched out on the time clock). Our usual transportation to Murdoch basin was a 16 ft. Glastron with two 28 hp. Evinrudes. Without radar or even a very good compass, the procedure at night or in fog was to line up and then go *very fast* to pick up the next marker before you lost your way. When you do this, it is wise not to mistake a box on land for a channel marker. Your boat may

leave the channel, and you will be able to walk all around that boat without getting your feet wet. This can ruin your whole day. There are some places--Big Shell/Murdoch Basin is one and Baffin Bay another--where Murphy's Law *always* prevails. I owned a 16 ft. ski-rig with a 60 hp. Gale Outboard and used it often for ten years. The *only* time I had a serious problem with that Gale was the *one* time we took it to Murdoch Basin. Failure of the main drive shaft in these motors is almost unknown; mine snapped in two--at the point farthest from home.

--John Thompson

Marine Education Services

Television Instructional Network --On November the 5th, Rick Tinnin, Marine Education Services Program Director, participated in a student enrichment program as a guest presenter on the TI-IN network's marine science course. The TI-IN network originates out of the Region 20 Educational Service Center in San Antonio. The satellite TV network provides academic and staff development programs to public and private schools by broadcasting high school credit courses each day throughout Texas and surrounding states. Rick has been a guest on the marine science program for the past five years. This year he discussed the physiography of the Gulf of Mexico with a focus on Texas coastal habitats. Using overheads and slides, he took the students on a tour of the Texas Gulf Coast and its marine-influenced environments. Rick took with him a variety of marine fish and invertebrates to demonstrate successful adaptations of these animals to their marine habitats. The program is entirely interactive. Students are viewing the live broadcast in their schools and can communicate directly with the presenters via a phone line and intercom system. Everyone hears the questions, answers, and comments of the instructor and guest lecturer. Information was also presented on current MSI research by the faculty and staff and on the Department of Marine Science and on career opportunities. Several TI-IN student groups have participated in the visiting class program and have been on the *R/V KATY*. Jo Lienback, who teaches the marine science course, and her technical crew filmed a TI-IN class trip aboard the *R/V KATY* and in the field and use the video each year in her course. The use of satellite technology allows small school districts to present courses without employing a full-time teacher. It is an economical way of providing access to foreign language, advanced math, astronomy, marine science, and other course offerings that would otherwise be unavailable to students.

--Rick Tinnin

Visiting Class Schedule for October --

- S.F.A.M.S., Millie Ehsani, 54 middle school students (October 2).
- Our Lady of the Lake Univ., Dr. Rainwater, 25 university students (October 3).
- U.T. Jr. Fellows, Dr. Cline, 41 UT students (October 4).
- Christian Heritage Schools, Lynn Mundy, 25 high school students (October 6).
- McArthur H.S., Carolyn Pesthy, 40 high school students (October 7).
- S.F.A.M.S., Millie Ehsani, 54 middle school students (October 9).
- Judson H.S., Martha Thorpe, 25 high school students (October 12).
- Holmes H.S., Richard Cramer, 22 high school students (October 17).
- SWTSU, Stan Sissom, 20 university students (October 18).
- J.Jay H.S., Calvin Buchholtz, 25 high school students (October 19).
- Tivy H.S., Verne Goetzel, 22 high school students (October 20).
- S.F.A.M.S., Millie Ehsani, 54 middle school students (October 23).
- Ed White M.S., Bev Shideler, 25 middle school students (October 24).
- Bowie H.S., Bruce Hall, 35 high school students (October 25).
- Trinity Univ., Dr. Kroeger, 22 university students (October 26).
- Trinity Univ., Dr. Kroeger, 20 university students (October 28).
- West Orange Stark H.S., Michael Hoke, 25 high school students (October 28).
- S.F.A.M.S., Millie Ehsani, 54 middle school students (October 30).
- Texas Women's Univ., Bob Deaton, 10 university students (October 31).

Ocean Emporium -- MSI employee discounts -- The *Ocean Emporium* has announced a 10% MSI employee's discount (also available to members of the Advisory Council). The discount is applicable to all items sold in the store. Do you know someone with a birthday coming soon? Do you want to get started on your Christmas shopping? In addition to the always popular T-shirts, many other items are available: *Museum Cards* (Audobon Water Birds, Randklev Seashells, Seashell Engravings), *Sealife Woodkits* (Dolphin, Hammerhead Shark, Shorecrab), 1993 Calendars (Dolphins, Sea-Life), many great posters (and lots more).

Students -- October 1992

(students not included in Issue 11)

Scott Stewart is from rural north central Arkansas and attended the Air Force Academy for two years. He has a BA in history as well as a BS in Biology, both from Oachita Baptist University, and he has an MA in Biology from UCLA. Scott is working on a Ph.D. with Ed Buskey as his major professor. His dissertation title is *The role of vision in the behavior of the medusa Tripedalia cystophora (class Cubozoa)*. He has spent some time in Nigeria and Japan and in San Diego, where he was a volunteer research assistant at the Sea World Research Institute. Scott: *UT is a large school with a good reputation and excellent resources; I think MSI is the finest, most well-equipped marine station of the six I've known. The department is strong in spite of its infancy, though some bugs still exist in the graduate program. Relations among faculty seem far more harmonious than others I've known, and that creates a good atmosphere for graduate students. Port A. is isolated, but for someone who lived in Southern California for three years prior to coming here, the lack of people, crime, smog, noise, and similar big city ills is greatly appreciated. I'd like to continue to work with cubo-medusae as a post-doctoral fellow, hopefully with the sea wasp in Australia, though I don't plan to limit my future study of animal behavior to jellyfish. Since my research is not directly linked to that of my advisor, the burden of funding is on my shoulders. Provided I can successfully compete for financial support I need, I hope to finish my Ph.D. by the end of 1994.*

Susan Brown is from Richmond, Virginia. She has a BS in Biology and Chemistry from the University of Richmond. She is working on an MA with Ed Buskey as her major professor. The exact title of Susan's thesis has not been selected but the subject matter will be in the area of microzooplankton grazing rates. After completing her MA, she hopes to continue into a Ph.D. program. Susan: *Department of Marine Science pros -- small school atmosphere, labs are not too crowded; DMS cons -- still too much red tape, no physical oceanographer, growing pains, student salaries. PA pros -- weather, beach, fishing, little crime, relatively quiet; PA cons -- a scary bunch, so little social life you can feel your social skills slipping away, no good shopping. Susan's hobbies are tennis, badminton, swimming, basketball, field hockey, lacrosse, shopping, sunbathing, family, diving, snorkeling, fishing, crabbing, etc. etc. and friends. She says she is working on her poker game and believes she is possibly the only Republican in the lab! (not so -- editor!)*

Chen Feng is working on his Ph.D. with major professor Curtis Suttle. His dissertation title is *The potential effects of solar radiation on the fates of marine viruses, and using marine bacteriophage as a biological dosimeter for uv radiation in the aquatic environment*. Chen is from Fuzhou, located in the southeast part of China, a mid-sized coastal city where he grew up with forests, mountains, streams, and the sea. His parents and younger brother still live there. Chen left home and went to the University in Qingdao when he was 17 years old. He has both a BS and a MS from the Oceanic University of Qingdao. He likes travelling, painting, and playing soccer. Chen: *Qingdao is regarded as a center of marine science studies in China, and Qingdao beer tastes so good that no one can have just one. The Department of Marine Science is still growing and becomes more well known around the world. The major obstruction for the international student is to get an assistantship when they have to spend two semesters in Austin. MSI is a well organized system, and P.A. is a beautiful little island town where you can find a lot of things which you may not find in the big city. The LazGaz is a very readable newsletter and keeps communication running. His future plans are to go home and see family and friends, and then travel around the world.*

Keith Schmidt has recently started on his MA with Ed Buskey as his major professor. His thesis will involve working with the feeding behavior of heterotrophic dinoflagellates. He received his BS in aquatic biology from The University of Texas at Austin. Keith says he is from: *Lockhart, home of the world famous Kreuz BBQ and Sausage Co. (which my dad owns) [and my favorite BBQ stop between PA and Austin -- editor]*. Keith's future plans are to graduate and get a much better paying job. Keith: *...need more influence in Austin. Seems like the Department in Austin provides courses for non-majors fulfilling a science requirement. How 'bout a BS in marine science? I like the people here at the institute. It's a great place to work, but Port Aransas is so far from the rest of Texas.*

Personnel

Halloween Costume Contest -- Well, we had our second annual Halloween Contest, and it was great! Prizes were given for scariest, cutest, most original, most spontaneous, and "spirit of Halloween". Olga Davila, who came as "Cousin IT", was the scariest; Lynn Amos, who came as a clown, was the cutest (the mask she wore was so realistic it looked like makeup); Amy Chan, who came as a vampire virus, was the most original; and John Thompson, who wore his old Marine Corps uniform, was the most spontaneous (he did admit the pants were not the original ones); Elsa Benavides, dressed as a mammy, won the "spirit of Halloween". Russ Miget graciously accepted the honor of being judge for this contest. John Thompson had wanted to be considered as the cutest. I told him that we had considered him, *and that's why Lynn won (I was robbed -- editor)*. Other costumes seen were: red tide, apollo space capsule, infected blue-green algae, brown tide, pumpkin, gorilla, the good witch of the north, pajama woman, and she-devil. The *South Jetty* showed up to take our picture for the paper. Cake and punch were served. The cake was a graveyard with tombstones representing certain members of the staff. All in fun, of course. It must be noted that the custodial staff worked hard in the preparation of the party as well as being participants in the contest. Thank you, Ladies! It was refreshing to see everyone enjoying a so-called "kid's holiday". This one was better than last year's and next year's will be even better. Yes, I'm already thinking of how to make this event bigger and better for you good people. Anyway, in conclusion, a good time was had by all!

--The Wicked Witch of MSI (Venus Mills)

David Jorissen -- Welcome to David Jorissen, a recent employee at the Bermuda Biological Station. He will be working for Ron Benner on the measurements of bacterial activity and utilization of dissolved organic matter.

Yong Zhu -- Dr. Zhu will be working with Peter Thomas as a postdoc on purification hormones and biochemistry of steroid membrane receptors. Zhu previously worked at the Central Research Institute in Japan. His wife, Yizhen, and daughter, Qin Yuan, are with Yong in Port Aransas also. Welcome!!

Guard position is open -- Applications are being taken now for the security position of guard with UT Police (position vacated by the resignation of Andy Crews). This is a regular full-time employment position. The shift involves work late at night and on holidays. A valid Texas Driver's License is required and a good driving record. Experience is helpful but not essential.

IN MEMORIAM -- ROY PEREIRA

It's not often in one's life that one is privileged to know such a dynamic, intelligent, fearless and fun-loving soul as Roy Pereira, a Ph.D. candidate with the TAMU Shrimp Mariculture Project. Roy was tragically taken from us in an automobile accident October 24th, but the legacy he has left behind will stay with us for the rest of our lives. Roy was always celebrating some aspect of life - a fascinating result from his most recent experimental run, a really good run the night before at the dog track (and anyone who knows Roy knows he had a lot of those!), or just sharing thoughts that happened to cross his mind at the time. Roy was at once highly intelligent and curious about everything - fun-loving, and one of the most sensitive people I've ever met, interested in everything in life that was going on around him. He was, without a doubt, the finest graduate student I have ever had the privilege to teach. From his scientific analyses of his doctoral research to philosophies of the different cultures of nearly everyone he knew, Roy was insatiable in his love of learning. He touched everyone he met in some way. Perhaps the best way to remember and know who Roy was and how he touched us, is to relate some of our staff's memories of Roy:

--Addison Lawrence

■ Even when news of Roy's death reached his friends and the community - new ways Roy reached out and touched those around him became readily apparent. When Roy was at the funeral chapel for visitation, before being returned to India, the first people to visit Roy at the chapel turned out to be three sweet little old women who had made Roy's acquaintance at the greyhound racetrack, and who used to sit behind him at every race. They had missed him earlier that day at their usual Wednesday races, then put the name they saw in the obituary together with what Roy had told them about himself. They told the family that after discussing it, they still weren't quite sure it really was Roy, so they just had to come down together to see for themselves. The family was very touched at their concern, and asked them to stay a few more minutes, to visit some more, but the ladies graciously declined, saying they just wanted to drop by and offer their sympathy, but they were on their way to the racetrack again! Roy would have loved that, for that was the essence of Roy; to touch people, to learn from people, and to share himself, without reservations, with everyone he met. A side note to Roy's racetrack admirers: not many may know this, but the first night Roy won big at the track, he immediately prepared a money order to send a portion of those winnings back home to India to his school, to start a scholarship, in order that other Indian students might have some of the same opportunities he did to broaden their studies and knowledge around the world. That, too, was Roy. He gave of himself without question, never expecting anything in return.

--Patty Beasley

■ Three weeks ago, Roy traveled with me to the Rio Grande Valley to transport shrimp from a commercial farm to the Texas A&M project in Port Aransas. We drove up the night before, and of course, talked of many things on the long road through the King Ranch. Roy told me he liked to read poetry. When I asked Roy what type of poetry, Roy said his favorite poem was by Robert Frost. As I am also a great admirer of Robert Frost, immediately I began quoting one of Frost's poems: *Whose woods these are I think I know, His house is in the village though;* Roy immediately took up the verse, finished the stanza, then recited from memory the four remaining stanzas to the poem. Roy, amazed, then asked me, "How did you know what poem it was?" I replied, "Because that one is held dear by thousands of American school children." We talked a few minutes about why the poem works -- because it is simple, direct, and elegant. The universality of the poem is somewhat like Roy's own universality. He was immediately comfortable with people from all walks of life. He was naturally curious. He loved people, was multicultural. He intended to work for the United Nations FAO in aquaculture when he finished his doctorate.

--Bill Bray

■ Roy had an open and outgoing personality that made him accepted and liked immediately by people from different cultures. He was appreciated equally by children, contemporaries, and elders. He was always friendly, cheerful, and interested in people. In return, he had the ability to bring out these same characteristics in others. Roy liked to teach, and liked to learn. Roy generously helped foreign students prepare for graduate school exams. While pursuing his doctoral research, he enrolled in classes at Corpus Christi State University - not to satisfy some degree requirements, but because he relished learning. Roy had an amazing diversity of interests. He was knowledgeable in aquaculture, biology, biochemistry, and statistics. He was also a good cook, pianist, and billiards player. He liked country and western music, greyhound racing, and poetry.

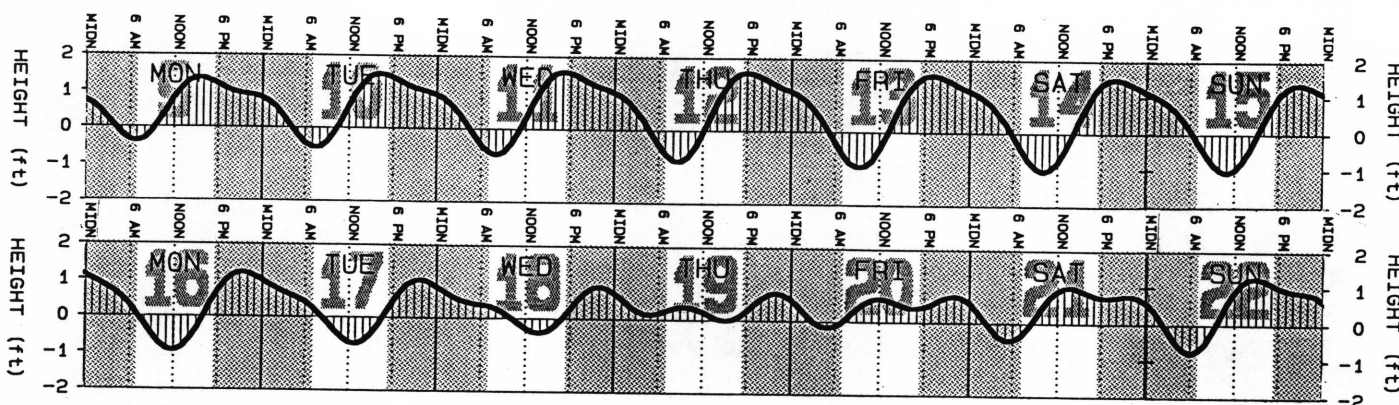
--Frank Castille

As a fitting conclusion to the too-soon snuffing of a bright light in our lives, Texas A&M University Professors William H. Neill and Addison L. Lawrence, Co-chairmen of Roy's doctoral committee, are recommending to Texas A&M University that Roy be granted his Ph.D. degree posthumously, as there is no doubt in any of our minds that Roy would have successfully defended, were he still here today. To all of Roy's friends and co-workers, on behalf of the Texas A&M University Texas Agricultural Experiment Station Shrimp Mariculture Project and the family of Roy Pereira, I would like to thank you all for your expressions of sympathy - we all share a great loss in Roy's death.

--Addison Lawrence

Tony's Tidings...

Tide Predictions -- November 9-22 (For tidal heights at the Tide Tower, South Jetty, the Aransas Pass. Heights are in feet above or below mean sea level. The shaded area is nighttime. Remember, this is tidal height, not tidal current. Slack water is when the wiggly line crosses the MSL line, not at peaks and valleys, where the tidal current will be a full flood or ebb.)



Weather Report -- October 19--November 1

19 - 25 OCT 1992	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	19	20	21	22	23	24	25	
AIR TEMP	HIGH	81.1	83.1	82.5	80.4	80.2	79.5	81.0
AIR TEMP	LOW	72.8	74.6	74.8	75.9	74.1	68.0	72.3
SEA TEMP	LOW	75.0		76.6		75.9	75.1	75.7
RAINFALL	TOTAL	0	0	0.02	0	0	0	0.02
26 OCT - 1 NOV 1992	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	26	27	28	29	30	31	1	
AIR TEMP	HIGH	79.5	80.0	80.9	81.3	81.6	79.7	80.6
AIR TEMP	LOW	69.2	71.6	71.6	75.7	76.6	66.5	72.4
SEA TEMP	LOW		75.0		78.6		78.9	77.5
RAINFALL	TOTAL	0	0	0	0	0.02	0.04	0.06

--Andi Wickham

Beach Report -- I'm off to the Antarctic for the next month, so I thought I would write about the beach as it was 10 years ago before I leave. Although these reminiscences are not about a time as distant as those John Thompson is writing about in "Egabrag Wocs", the old adage about the more things change, the more they stay the same comes to mind.

Tuesday, November 2 1982: "Much garbage - light bulbs, fluorescent tubes, plastic, bottles, water hyacinth. An eastern meadowlark flies in from the sea to rest on the Civil War wreck (now buried under the dunes). Dead loggerhead sea turtle. 50 lb cylinder (disposable) of dichlorofluoromethane pentafluorochloroethane. One-footed Ring-billed Gull (I still see this bird - it comes back every year). Immature Sabine's Gull!" (I took many photographs which were later submitted to the "authorities" and has been accepted as a Texas record). 1,143 Birds of 26 species. Air temperature 77.2, Sea temperature 77.4, Salinity 29.97. Mostly clear.

Thursday 4 November, 1982: "Beach swept clean by high tides (beyond old dune line). A bat(!) flies in from the sea and heads into the dunes." 1,644 birds of 36 species. Air temperature 48.6, Sea temperature 65.5 (a front came through), Salinity 30.02. Clear, cold, windy.

Saturday, 6 November 1982: "Field of bitumen-like tar pieces. Abandoned yellow van with two missing wheels. Green sea-grasses, beach fairly clean but lots of plastic sheeting at shoreline." 898 birds of 22 species. Air temperature 69.8, Sea temperature 67.6, Salinity 29.34. Partly cloudy.

Monday, November 8 1982: "Some Portuguese Man O'War, offshore trash, bottles, plastic fishing floats (styrofoam). Note: (*The*) odd way piping plovers feed - marks on sand show that it feels sand with left or right foot then suddenly probes with bill but the probe seems to bear no relationship to where the foot felt. Much fresh *Sargassum* weed and water hyacinth. Dead Canada Goose, good condition, kept for specimen (This was the "small" race of the Canada Goose, not much bigger than a duck. It is now in the Texas collection at Texas A&M.)" 1,011 birds of 19 species. Air temperature 71.6, Sea temperature 69.6, Salinity 29.85. Mostly clear.

editorial: Project R/V 2000

R/V 2000--It's not a used recreation vehicle at a bargain price. *R/V 2000* is a suggested name for a project to obtain a new *Research Vessel* for MSI. The *2000* comes from the year by which the new ship should have already completed her sea trials. *2,000 dollars* is also a good target amount for a daily rate.

Why the year 2000? This number did not come out of a hat. The projected academic fleet replacement schedule (prepared by RVOC/UNOLS) projects the year 2,000 as the replacement year for *R/V LONGHORN*. Thirty years is considered a normal life span for such vessels. In 1986 *R/V LONGHORN* had her *midlife* major refit. She is still the same old hull, and by 1986 we were already audio-gauging (testing plate thickness with ultra sound) and replacing sections. Major sections were replaced during the refit and additional areas in 1990. At some point you need a new ship--and the best estimate is by the year 2000.

Why a \$2,000 daily rate? I didn't use a hat here either. In 1971 our rate on *R/V LONGHORN* was \$640, and it has climbed to \$3,000, and will be \$4,000 in January. Inflation has a good bit to do with this increase. But at first we operated with a Captain and one Deckhand. Now we have a Senior Captain and two Mates (both qualified to serve as Captain), and a Cook. Fuel was hardly a cost to be considered at 14 cents a gallon. Not only is each gallon now more expensive, but we use more (increased size of generators). There is more ship and equipment to maintain--and it's older. Someday the National Science Foundation is going to reconstruct their ship funding system so that incentives are provided to keep the daily rate down. But right now much of our own ship use is not funded by NSF, and funds for internally financed ship days *come out of our hide!* The real world is going to be more and more cost conscious. Our future ship needs maximum capability compatible with minimum operating cost.

What is maximum capability? A ship's capability extends in two directions, and as you add at one end, you often subtract at the other. Besides having a high daily rate, if a ship can cross the Atlantic in comfort with a scientific party of 30, she draws too much water to work *any* Texas bay. *R/V LONGHORN* is good in extending both directions--capable of work anywhere in the Gulf and can still work Texas bays fairly well. However, we need a vessel which is *superb* in her capabilities. MSI also operates the *R/V KATY*; she is younger than *R/V LONGHORN*, but will not last forever either. *R/V KATY* is a great little ship. She is simple, inexpensive to operate and maintain, capable for her intended use--and *she stays busy*. *R/V KATY* is better than *R/V LONGHORN* for trawling inshore and making the hundreds of day trips for classes in the Marine Education Services program.

Eureka -- I have found it: the solution to operating *and paying for* ships in the real world. It will not be easy; and a poor compromise ship could be ineffective at both ends of her capabilities. Nevertheless, the challenge is to replace *both* the *R/V LONGHORN* and the *R/V KATY* with one ship. Our line item funded ship crew budget has shrunk from three to two; at the same time our ship personnel roster has increased to six. The great majority of work requested by our own MSI scientists is--and always has been--near shore and in the estuaries (they also have work from the Amazon to the Pacific and aboard Icebreakers in the Antarctic--but we are hardly considering joining that research vessel game). The challenge is to have a ship which will lose little of *R/V LONGHORN*'s capability in the Gulf and will add *R/V KATY*'s capability for

handling students in the bays. She needs to have a daily rate in the realm of \$2,000, and her cost per student carried should be no more than the *R/V KATY's*. Scheduling will be difficult--but not impossible. And the bottom line is: she will stay busy, and she will be affordable. The *R/V LONGHORN* will have to be retired by the year 2000 regardless. It is time to start planning now so that MSI can survive the future with a ship that is first class but frugal.

--John Thompson

Letters to the editor

Issue 11 of the LazGaz arrived like a bolt from the blue, recalling fond memories of my stay at UTMSI back in '78'79. I appreciate the database of fellow graduates and the other news about the Institute. I need to update you concerning my occupation for any future editions or uses. I have left EMANCO after 10 years of environmental consulting, and should now be listed as President, Eidos Incorporated. Eidos is involved in software and engineering, but I still like to sample redfish occasionally. The address in Austin (my home) remains the same. My home phone number is 512-328-9106. Please add me to your mailing list if the LazGaz is regularly mailed. Please also give my regards to fellow dart throwers and softball players, Tony and Lynn Amos, Scott and Joan Holt; also to Jim Cameron and other hard-core Institutos. I am happy to see that the Institute is prospering, attracting students, and advancing science.

--Michael Gunter

Trip Reports & Travel

October 24--November 6 Travel

- ➔ *Scott Holt, Joan Holt*, October 28, Corpus Christi, attend Annual Conference of the Southwestern Association of Fish and Wildlife Agencies.
- ➔ *Rick Kalke, Jennifer DiCocco, Karen Meyer*, October 25-29, Houston/Clear Lake, field collecting for Peter Thomas.
- ➔ *Dean Stockwell*, October 26-29, Houston, to attend a special training session on HPLC pump and integrator system, conducted by Spectra Physics.
- ➔ *Robert S. Jones*, October 27-31, Honolulu, Hawaii, to attend the University of Hawaii's Undersea Research Laboratory's Science Review Panel.
- ➔ *Paul Montagna*, October 29-31, Washington D.C., to attend the governing board meeting of the Estuarine Research Federation and make a presentation to have the 1995 biennial conference in Corpus Christi.
- ➔ *Terry Whittedge*, November 1-4, Miami, Florida, to attend Nutrient Enhanced Coastal Ocean Productivity (NECOP) technical advisory committee meeting for 1993 cruise planning.
- ➔ *Ed Buskey*, November 4-6, Port Isabelle, present paper *Brown Tide* at the second annual Lower Laguna Madre Conference.
- ➔ *Paul Montagna*, November 4-6, Port Isabelle, present paper *Benthic Ecology* at the second annual Lower Laguna Madre Conference.
- ➔ *Scott Holt*, November 4-6, Port Isabelle, present paper *Larval Fish Ecology* at the second annual Lower Laguna Madre Conference.
- ➔ *Ken Dunton*, November 4-6, Port Isabelle, present paper *Contribution of Marine Macroalgae to Primary Production in Laguna Madre* at the second annual Lower Laguna Madre Conference.
- ➔ *Andrew Czerny, Greg Street, Beau Hardegree, Christopher Martin*, November 4-6, Port Isabelle, to attend the second annual Lower Laguna Madre Conference.
- ➔ *Rick Tinnin*, November 5, San Antonio, to present a program on UTMSI research and the MES program highlighting coastal environments and animals for the TI-IN (television instructional network) satellite marine biology class.

Gastronomic Gazette

Order your Thanksgiving dinner now! Yes, it is not too early to let Toni Martinez know you would like to reserve a spot for her special Thanksgiving dinner. MSI will celebrate turkey day early--**THURSDAY THE 19TH**. The menu calls for salad, turkey and dressing with gravy, green beans, yams, rolls, and pumpkin pie. Price: \$4. Toni needs to plan for the appropriate number of people. Let Toni know as soon as possible, but in no case later than Wednesday the 18th. (*Walk-ins will not be served.*)

Editor's Note

I hope the letter from Mike Gunter will be only the first of many to be received from those who were students at MSI. Please give us a chance to update our files, while letting your former associates know you are still around, and perhaps helping reestablish some contacts. Now that we have made it to an even dozen issues, maybe it is time to finally say a few things about the *Lazarette Gazette*. We hope to publish every two weeks--on schedule (and have made it so far). We want the *LazGaz* to be timely and informative--but light-hearted. Your contributions are welcomed. In addition to news items and letters to the editor, we would especially like to receive contributions to *Egabrag Wocs*. Some may have wondered about our policy on titles. In the same paragraph, we may use "Dr." before someone's name and then omit it for someone else, who also has the Ph.D. The difference is: for our "home folks" we know they are Dr.X and we just keep it friendly with the first name. But for those mentioned in the *LazGaz* who are not members of the MSI faculty or staff, we will usually put their title. Two corrections are needed to our student list in issue #11: Richard White and Susan Safford both earned the Ph.D.--not an MA as erroneously listed in our summary. We had a record number of people contribute and help with this issue of the *LazGaz*. I hope this is a trend. Thanks for help with this issue to: Paul Montagna, Rick Tinnin, Venus Mills, Mike Gunter, Addison Lawrence, Patty Beasley, Bill Bray, Frank Castille, Lynn Amos, Patti Baker, JoAnn Page, Kathy Quade, Linda Yates, Bob Jones, Tony Amos, Andi Wickham, Chuck Rowe, and especially Terry Whitledge. And thanks to all the students who responded to our questionnaire, providing the current student information for both issues 11 and 12.

--John Thompson

Introducing the MSI Octopi

Linda Yates, who does the masthead art for the *Lazarette Gazette*, has suggested this design as a possible not-so-serious logo for the Marine Science Institute. The few who have seen it thus far have liked it. What do you think? Any suggestions?

