

The Lazarette Gazette

NEWS FROM

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Director's Report



This is the time of year when our *Annual Organized Research Unit Report* is completed. We can be proud of the many achievements of the Marine Science Institute in the past academic year. The hard and productive work of our MSI Faculty and Staff are reflected in this report, and I want to share some of it with readers of the *Lazarette Gazette*. First, in financial support we find that the total of our direct University support last year was 1,498,273. And we received 2,850,132 of other funding, primarily grants and contracts, during the year. We also received important gifts from our Marine Science Advisory

Council members, UTMSI alumni, and other interested people, that will greatly benefit our current and future students and programs. Thus the Marine Science Institute's total funding for the past year was 4,348,405. This does not include the Physical Plant budget, which, if included, would put the total amount for the Marine Science Institute at over five million annually. Other measurements even more important than dollars received reflect the achievements of MSI. In *Scholarly Productivity*, MSI scientists produced 66 refereed papers, 5 book chapters, and made 72 presentations at meetings of learned societies.

And in the most recent academic year, MSI researchers have shown the following: ■ Red drum recruitment in a seagrass nursery habitat, was affected more by mortality than by nutritional condition or growth rate. ■ Red drum and croaker, co-occurring in seagrass beds, fed on the same prey, but competition was reduced by different timing of peak spawning. ■ Last year's red tide bloom contracted the red drum spawning period and reduced larvae recruitment to seagrass nurseries. ■ Low water temperature reduced growth of red drum larvae but did not affect "condition", but starvation reduced growth rate and caused poor condition. ■ Temperature affected behavior of small organisms, such as larval fish, by changing water viscosity as well as physiological rates. ■ Two species of ornamental cleaner shrimp were successfully spawned in laboratory. ■ First characterization of a steroid hormone receptor on sperm in any vertebrate species was accomplished in spotted seatrout. ■ An estrogen receptor was identified in fish testes. ■ Studies on sources, composition, and reactivity of dissolved organic matter were conducted in the ocean. ■ New mass spectrometer for stable isotope analysis calibrated and made operational. ■ Ozone depletion affected below-ice light and response of arctic kelp to natural variations in underwater UV irradiance. ■ Unique phosphorus form (phosphonate) constituted a significant portion of P in ocean. ■ Interdisciplinary studies on nutrient distributions/dynamics were conducted in Alaskan coastal waters. ■ Ongoing submarine study was conducted in under-ice arctic zone connecting Atlantic and Pacific Oceans. ■ Below-ground and above-ground seagrass production was measured in Laguna Madre. ■ King ranch runoff water did not stimulate Texas Brown Tide (TBT), but isolation of sediments from overlying water decreased TBT survival in mesocosm experiments. ■ TBT tolerated extremely high salinities whereas zooplankton grazers of TBT did not. ■ Brown tide adversely affected benthic worm larvae. ■ Freshwater inflow increased productivity and controlled community structure in estuaries. ■ Anthropogenic disturbances decreased genetic diversity in marine populations. ■ Copepod swarms in Belize used light shafts in mangrove systems to protect against predation. ■ Deep sea copepods produced bioluminescent liquid and jumped away from it in attempt to blind and confuse predators. ■ Light and temperature acclimation was demonstrated for large, productive brown algae in Antarctic food webs.

Looking beyond the reporting period to *Future Planning*, we stated that MSI should continue to develop high-quality research and educational programs focusing on fish physiology/ecology, biogeochemistry, and ecosystem dynamics in coastal and estuarine regions. The research purposes are to improve understanding of marine systems and to address important regional problems. A goal is to make UTMSI a "Center of Excellence" for research and education that promotes interdisciplinary as well as disciplinary coastal and estuarine projects. UTMSI research, teaching, support staff, facilities and research vessels are excellent but more breadth in research and teaching disciplines is needed. Added expertise is needed in stable isotope biogeochemistry, molecular biology, shellfish physiology/ecology, physical oceanography, and ecosystem modeling. A goal for this year is to fill a faculty position in stable isotope ecology/biogeochemistry and to explore funding sources to increase student and faculty support. Continued development of the audio/video telecommunication facilities will improve communications with the Austin campus, increase teaching capabilities, and encourage teleconferencing with other marine laboratories. A public seminar series at UTMSI on "Critical Issues in Marine Science" will complete our 50th year anniversary celebration.

—Wayne Gardner

Thank you for letting us come to learn more about sea life. It was awesome how you collected sea creatures by using a net, I loved the dolphins. I want to go back some time. Thank you for all you did to make our trip cool.

Sincerely,

SASHA & GRIME

Students

Claire Fernandez — After working one summer as an undergraduate in Peter Thomas' lab Claire Fernandez decided UTMSI was the place to study marine science. This was not an easy decision for a TAMU graduate with a family history of Aggie rings, boots and football games. Claire's thesis was an investigation of the effect of temperature on growth and condition of young red drum. She found that, although growth was reduced at low temperatures, the condition and health of the larvae was not changed. Young red drum do well over a broad range of temperatures but faster growth at higher temperature reduced the time spent in the vulnerable larval stage. She has submitted a manuscript for publication in the journal of Fish Physiology and Biochemistry from this thesis and has another paper in the works.

Claire contributed even more, working out bugs in our analytical measurements of fish condition, and training and working with other students on those techniques. Besides research, giving two presentations at scientific conferences, receiving a National Hispanic Scholarship and an American Fisheries Society Student Award, Claire found the time to become a certified aerobics instructor for Bulls Gym. Thus, we traded roles with Claire teaching me how to build up physical strength on Tuesday and Thursday nights and me teaching her how to plan, execute and evaluate a scientific study the rest of the week. Some times, especially after a particularly difficult rewriting session, my work-out at the gym seemed to get a little too intense- how many push-ups? Claire was always full of energy and kept things jumping at FAML. She graduated last May and is now working in San Marcos with the Texas Parks & Wildlife Hatchery in the fish genetics/ fish health working group. We miss her bouncing ponytail and cheery good morning.

—Joan Holt

CLAIRE:

At the time, I was a junior at Texas A&M. I had three years laboratory experience in several types of research labs; and it was time to do something a bit different, so I applied for a job at Sea World of San Antonio's Shark Exhibit. Then I received the call. I sat in an empty lab; I sat with my head held low. I didn't get the job. To add insult to injury, the door to the lab opened and Dr. Duncan MacKenzie said, "You'll have to find work this summer, kiddo. I haven't enough funding for you." Suddenly I remembered meeting a colleague of Duncan's at the Southwest Regional Conference on Comparative Endocrinology - 1992. Maybe he had room for an undergraduate. It was worth a shot! That summer, I was to work as a technician for Dr. Peter Thomas. Though very excited, I didn't know what to expect. Little did I realize my time in the Thomas lab was to be the spring board to my graduate career. After becoming familiar with the faculty, staff and grounds, I knew UTMSI was the place to be for graduate school. Oddly enough, at the following year's endocrinology conference, I received notice of acceptance to UT's Graduate School. (This is the part where my Ol' Ag father dies of shock!). It was goodbye to Aggie Bonfires, the Corp of Cadets, Yell Practice, getting screamed at for walking on the grass, and most of all the conservative majority! (Yeah, sure, I'm boo hooing all the way to Austin!). It wasn't just culture shock of the big city and campus that appealed to me. (Okay, so I was scared at first, but Austin and UT grew on me quite easily!) I learned much more in five years at UTMSI than I ever did at the "Other School". UT forced me to challenge myself. As an undergraduate, I rarely interacted with other students and didn't want others interacting with me. Though my grades were acceptable and laboratory experience was ample, I was still lost. With the help of a Southern Belle from South Carolina, a Cat FREAK/Trekker from New York, a Hippie Chick from "Shady Grove", a Ray of Sunshine from the College of Charleston and countless others, I got through the toughest of graduate courses, learned how to give of myself and how to treat others with kindness and respect. The friends I made at MSI will never be forgotten.

Many students know the stress of graduate school can wreak havoc on a girl's waistline! This happened to me. After two semesters in Austin, I made a bee line for a small warehouse-looking establishment in Port Aransas called Bull's Gym. I wanted to get my body in shape as well as my mind. Since then, physical fitness has become a large facet of my life. As time passed, many other students and I looked to the gym for relief. When lab protocols went wrong or there was a writing block, Charlie, Jane or Zach would be there to cheer me up. All I had to do was turn on the music, get out my aerobic step and JAM! The gym was a safe haven for the sometimes scientifically challenged. Becoming an aerobics instructor worked to my advantage. Was it coincidence I was instructor to many of the classes in which Joan participated? I call it subtle poetic justice.

During my final months at MSI, I came across a job opening for a Microbiologist at the Texas Parks and Wildlife A.E Wood State Fish Hatchery in San Marcos. I was accepted for the position just prior to graduation. The challenges given to me at MSI helped me get this job. However, attaining this position was in part due to improvements in my outlook and attitude. My "family" at Bull's Gym and at the Marine Science Institute helped me build this positive outlook on life. At TPWD, I analyze DNA and allozymes in many of the Micropterus (largemouth bass, spotted bass, guadalupe bass) and Morone species (striped bass, white bass) using protein electrophoresis, isoelectric focusing and random amplified polymorphic DNA (RAPD). In addition, I analyze several fish diseases which arise in freshwater fish culture by using microbiological protocols (bacterial culture and identification). I also teach aerobics daily at Jim's Gym in San Marcos. Though I enjoy my employment at TPWD and the gym, I will forever miss Port Aransas and my friends (family) at the Marine Science Institute. I would not have been able to achieve any of my goals without you. Thanks and I love "Ya'll". (Feel free to visit me in San Marcos anytime! Shopping is GREAT and the river is always breathtaking!)

—Claire Fernandez, *Hyper Vyper*

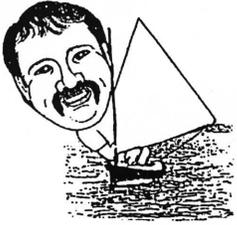
Abstract

THE EFFECT OF TEMPERATURE ON LARVAL FISH GROWTH: CHANGES IN RNA:DNA RATIOS OF LARVAL RED DRUM (*SCIAENOPS OCELLATUS*)

Anna-Claire Fernandez, M.A.
Supervisor: Joan G. Holt

Larval red drum (*Sciaenops ocellatus*) are subjected to a wide range of temperatures during transport from spawning to nursery areas. Cooler water temperatures can directly or indirectly reduce larval growth rate. The ratio of ribonucleic acid (RNA) to deoxyribonucleic acid (DNA), is an excellent indicator of growth and condition of larval fish. An experiment was designed to investigate whether the relationship between growth rate and RNA/DNA can be influenced by temperature, whether this relationship changes between fish in the planktonic stage and those in the demersal stage, and how the relationship between growth rate and RNA:DNA ratio differs in different tissues. Growth rates of fish reared at warm temperatures (28°C) were significantly greater than those grown at cooler temperatures (23°C) but a significant temperature effect on daily RNA:DNA levels was only apparent in the demersal phase larvae. There was, however, a significant effect of temperature on the relationship between RNA:DNA and growth rate (G) over the entire larval period. The increase in growth rate with respect to RNA:DNA was significantly higher at the warmer temperatures presumably due to more efficient utilization of RNA or higher retention of synthesized proteins. The dynamics of growth and nucleic acid production are different in different tissues. Results from this study suggest that the most accurate representation of growth would be to examine muscle tissue and not the entire body.

Cruise Reports & Boat Operations



Cruise #97-700 —The *R/V LONGHORN* departed Port Aransas at 1405 on Tuesday, November 18 on a cruise for the Texas Parks and Wildlife Department's Artificial Reef program. Jan Culbertson of the TPWD was aboard as Chief Scientist as well as Douglas Peter and Catherine Villarreal also of the TPWD. The cruise had been delayed one day due to the weather. We checked the status of two buoy sites on the way to Port Isabel. At Port Isabel, when pulling up the buoy anchor, our newly installed load sensor on the main winch showed 13,000 pounds of pull. The problem was that the anchor was buried in the mud. When the anchor finally broke loose, the winch quit working. We repositioned the boat and had to cut the cable and let the anchor drop back on its original location. When our attempts to repair the winch were unsuccessful we were able to contact the manufacturer by cellular telephone for assistance. A loose relay turned out to be the problem and it was corrected. After the repair we were able to replace the buoy. Jan Culbertson praised cook Frank Walker in her report,*Cook provided excellent food for duration of rough weather, cooking under adverse conditions and deserves a commendation...* Rough weather did not permit the TPWD personnel to perform the diving operations they had planned. We returned to Port Aransas at 0430 on Thursday, November 20. This was cruise #97-700. Cruises are numbered consecutively with the year as a prefix. In her 27th year the *R/V LONGHORN* has now finished her seven hundredth cruise.

Cruise #97-701 — Our National Science Foundation ship inspection was conducted December 8 and 9. Our crew has been working hard and long hours to prepare for the inspection, which is our first since 1993. Cruise #97-701 was the *at sea* portion of the ship inspection and occupied much of the day on Tuesday, December 9. At sea the inspectors had us put the *R/V LONGHORN* through her paces as well as requesting us to execute several drills. Ashore they examined the ship from stem to stern and from the bilge to the radio antennae. An informal oral summation was presented to Wayne Gardner, Terry Whitledge, Tony Amos, John Thompson and myself. We will receive a formal written report later. Those making the inspection and cruise were: Dick West, National Science Foundation; and Jack Ringelberg, Blake Powell, and Greg Beers, all three of Jamestown Marine Services.

R/V KATY is now beginning to wind up its busy "fall" season. The busy period for the *R/V KATY* and Captain John Turany begins about the middle of September and continues until Thanksgiving, although we do have a few trips scheduled for December. But it is the months of October and November when the *R/V KATY* is particularly busy with trips scheduled by Marine Education Services. The *R/V KATY* made two trips during the period for research, Scott Holt's work which takes place at night and in the middle of the channel, but the other 49 trips during September and October were all MES. The 49 trips included Elementary, Middle, and High School groups as well as College and University Groups. A class from St. Mary's Hall of San Antonio was reported to have included the grandchild of someone occupying a rather high position at The University of Texas at Austin.

—Noe Cantu



FAMOUS DOGS OF PORT ARANSAS PART ONE: WALTER

Editor's note: Someone said my one claim to fame was being the only person who ever killed a rattlesnake with a bicycle (thereby destroying the bicycle). I had thought to write about that and put blame where it belonged — on my faithful old Hound Dog and perhaps tell other Hound Dog stories; such as when Hound Dog fell, unwitnessed, into the UT Boat Basin and paddled around until rescued at his last weary slow-paddling moment by Captain Elgie. From that I jumped to the idea of a column on Famous Dogs of Port Aransas and disturbed the Arkansan tranquility of Professor Emeritus Patrick Parker to jog my memory about the adventures of his dog, Walter. Dr. Parker rushed to defend Walter against my accusation that the dog, on more than one occasion, anointed the Administration Building's drinking fountain, in doing so Pat provided such a doggone good tale of a good dog now gone that I have reproduced it all below.

—John Thompson

Walter. Walter was half spaniel, but he looked like a golden retriever. Early on he started to come to work with me and for the most part just slept under my desk in the now "Peter Thomas-wing" of the Administration Building. John Batterton, then Chase Van Baalen's student, always brought his lunch and it always included a banana. Walter begged and John would only offer him the banana, which Walter declined for about a year. Then Walter finally gave in and John had to share his banana with him every day after that.

Walter. As time moved on and Walter got smarter he started attending seminar. He did fine, just slept like several others. Then one day a student put a cigarette in his mouth and another lit it and Walter smoking in his sleep broke up the seminar. He was banished from seminar.

Walter. He was a great friend of Judy Sever. She had a little open red sports car and would approach my house screaming **WALTER**. He would meet her in that curve near East Street; she would slow down and Walter would jump into the front seat and they would proceed on to the lab.

Walter. When Ralph Plumlee came to Port A and bought everything in sight he rode around town in an old jeep with his little dog sitting beside him. One day I was walking along the street in downtown PA and the jeep went by with Walter in the front seat next to Plumlee and the little dog in the back. Walter did not even look at me, much less speak.

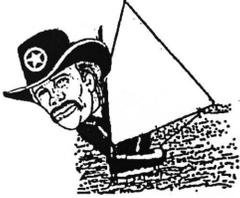
Walter. He seemed to like the rich and famous. When we spent the year in Washington D C we rented a house on a little circle street. We had to tie Walter in the yard for awhile for he had gotten lost the first day. A heart surgeon lived two houses down and despite the fact that her husband hated dogs his wife would come down and untie Walter and take him home with her for the day. This went on for awhile. One day I was taking a walk and Walter and the surgeon drove by in his Mercedes. Again Walter did not let on that he knew me.

Walter. He seemed to have a look and manner that made people like him. Then Curly came in 1965 and tried to ban Walter from the Lab. The charge was "peeing on the water cooler," which I deny, unless someone else did it first. I would not let him in the building, but he would stand at the loading ramp door and wait for Herb or Brit and they would always let him in.

—Pat Parker

Bureaucratic Beatitudes

BLESSED ARE THEY WHO FOLLOW THE REGENT'S VEHICLE RULES



Listen people and aggies, be advised to follow the rules when operating a University of Texas vehicle. The University of Texas Regents' Rules and Regulations state: *Any motor vehicles permitted under state law to be owned and operated by the System shall be used only on official business.*

Folks, this includes even short stops at a convenience store, restaurant, bank, etc. and even if the stop is on the way to a work destination. Such use is not only prohibited but creates a poor image of The University in the eyes of the public. —Walker

BLESSED ARE THEY WHO PROPERLY CARE AND FEED THE GATOR

I usually include aggies as well as people; this time I don't. *Gator* is what John Deere folks call their 6-wheel ATV (All Terrain Vehicle). Aggies know about *Gators* and ATV's and *John Deere*. They do not need Tony Amos tellin-em. But people, *please* be followin these suggestions from Tony regards to his favorite toy. (Translated to Texan as his English is too polite.) —Walker

☆ You take off the canopy; you put it back.

☆ You get it dirty; you wash it.

That thing don't run worth a darn when its full of mud. Or, as Tony says, *Mud gets caked so thickly inside the engine compartment that when it dries it can impair the performance...The life of this machine will be extended by proper cleaning.*

Attaboys

■ John, I just want to thank you and your crew for doing such a great job in installing the tanks in the Tox Lab for our turtles. Mike McGill in particular did a great job. It was finished just at the right time and we were able to get our two big animals inside before they froze.

(To John Shaw, Mike McGill, and the Building Maintenance Crew from Tony Amos)

■ Just thought you'd like to hear this. I was at a lab safety workshop and ran into a lady who had attended a *KATY* workshop you had done at SPI some years ago. She said that it was that workshop that made her decide to become a science teacher. So you're not just affecting curriculum but also people's careers.

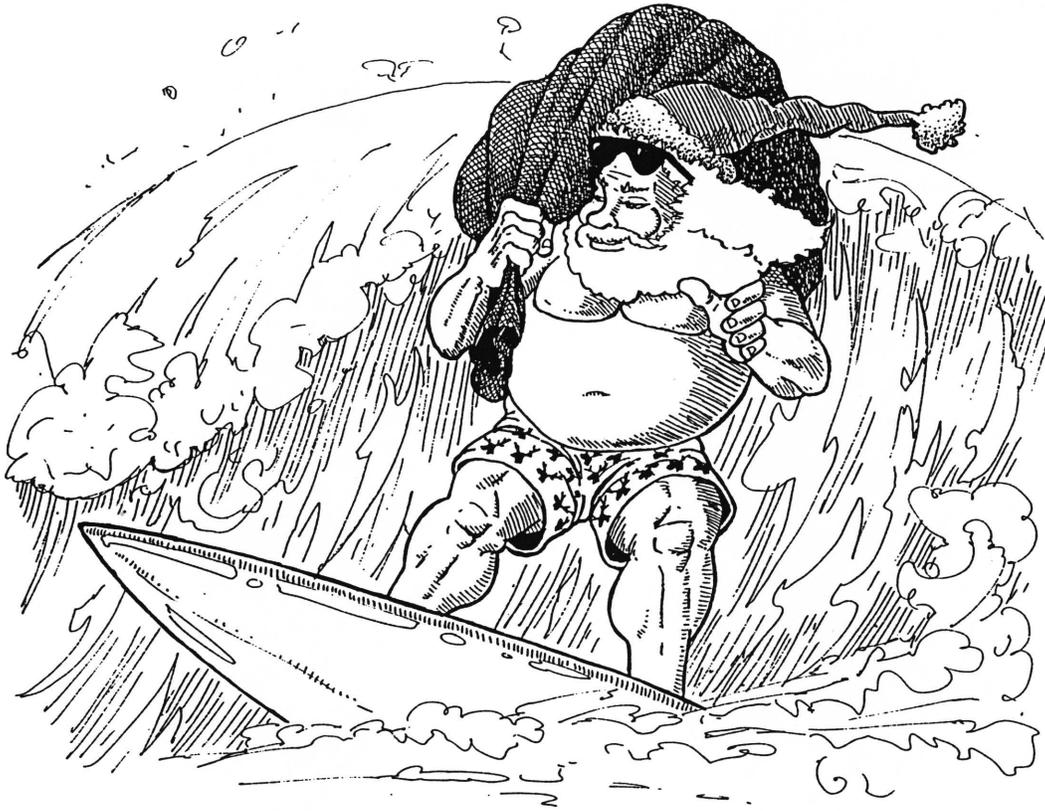
(To Rick Tinnin from KK Clark, High School Science Teacher, Brownsville, Texas)

■ Thank you for taking us on such an interesting field trip. I really enjoyed holding those cool fish and shrimp. Thank you for letting us look through the microscopes and telling us how to use them. And last but not least, thanks for taking us on the ocean cruise.

(To Captain John, Bob, and Linda from Josh, First Baptist School, Corpus Christi)

SURFIN SANTA

(AKA: CHRISTMAS IN PORT ARANSAS)



WHO VISITS OUR SMALL ISLAND TOWN EACH HOLIDAY SEASON?
HE'S A SALTY SAINT NICK
BUT HIS MIND LOST ITS REASON.

WHO BRINGS US GIFTS FROM THE DEEP AND BRINY
ALL COVERED WITH SEAWEED
AND GRITTY AND GRIMY?

WHO BRINGS US THE GIFTS THAT WE GET
SO NEATLY WRAPPED
BUT SOGGY AND WET?

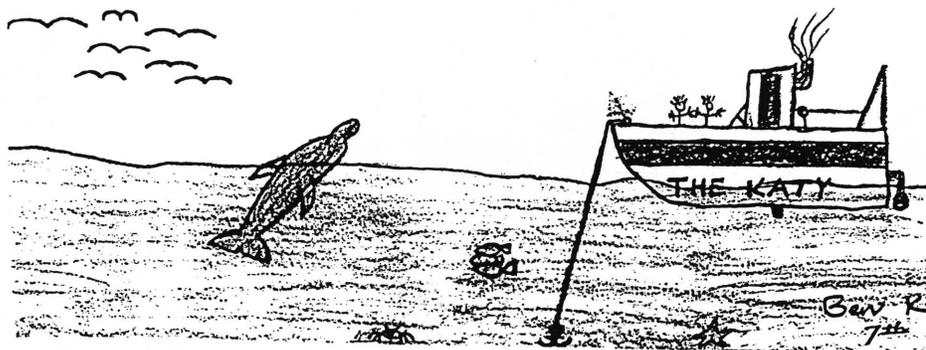
WHO IS IT ON CHRISTMAS WE TRUST
TO BRING US SOME GIFTS
BEGINNING TO RUST?

HE'S A FABULOUS BEING A SANTA RENOWN.
WE ONLY HOPE
SURFIN SANTA WON'T DROWN.

Trip Reports & Travel

Travel ending between November 7 and December 12

- *Terry Whitledge*, November 8—12, Seattle, Washington, attend Arctic climate change meeting as an invited speaker.
- *Terry Whitledge*, November 14—16, Knoxville, Tennessee, attend science steering committee meeting of Arctic system science of ocean/atmosphere/ice program.
- *Rick Tinnin*, November 17, Lago Vista, Texas, meet with teachers for follow-up session on Blue Planet project.
- *Terry Whitledge and Dean Stockwell*, November 19—23, Seattle, Washington, attend principal investigators meeting for Bering Sea inner front program.
- *Peter Thomas*, November 10—24, Yokohama, Japan, present paper, *Characterization and regulation of a progesterin receptor on Atlantic Croaker sperm*, and chair session on signalling mechanisms, at XIII International Congress of Comparative Endocrinology.
- *Ken Dunton*, November 24—26, College Station and Galveston, Texas, attend pre-meeting at Corps of Engineers—ICT and presentation on seagrass modeling project.
- *Paul Montagna*, December 1—2, Houston, Texas, present invited paper, *Effects of freshwater inflows on infaunal benthos*, at Instrumentation and Environmental Flows Symposium.
- *Ken Dunton*, December 5, Brownsville, Texas, invited speaker at Lower Laguna Madre Foundation meeting, *Development of a seagrass production model for the Laguna Madre*.
- *Tracy Villareal*, December 8—9, College Station, Texas, pickup equipment.

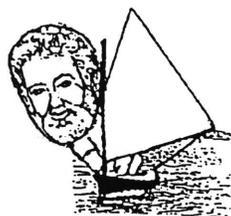


Personnel

Hayden Abel — is now at home following a full week in the hospital. Captain Abel was admitted to the hospital after suffering a serious blood clot in the leg and groin area. It has been reported that Hayden is looking forward to returning back to work after enjoying the holidays at home.

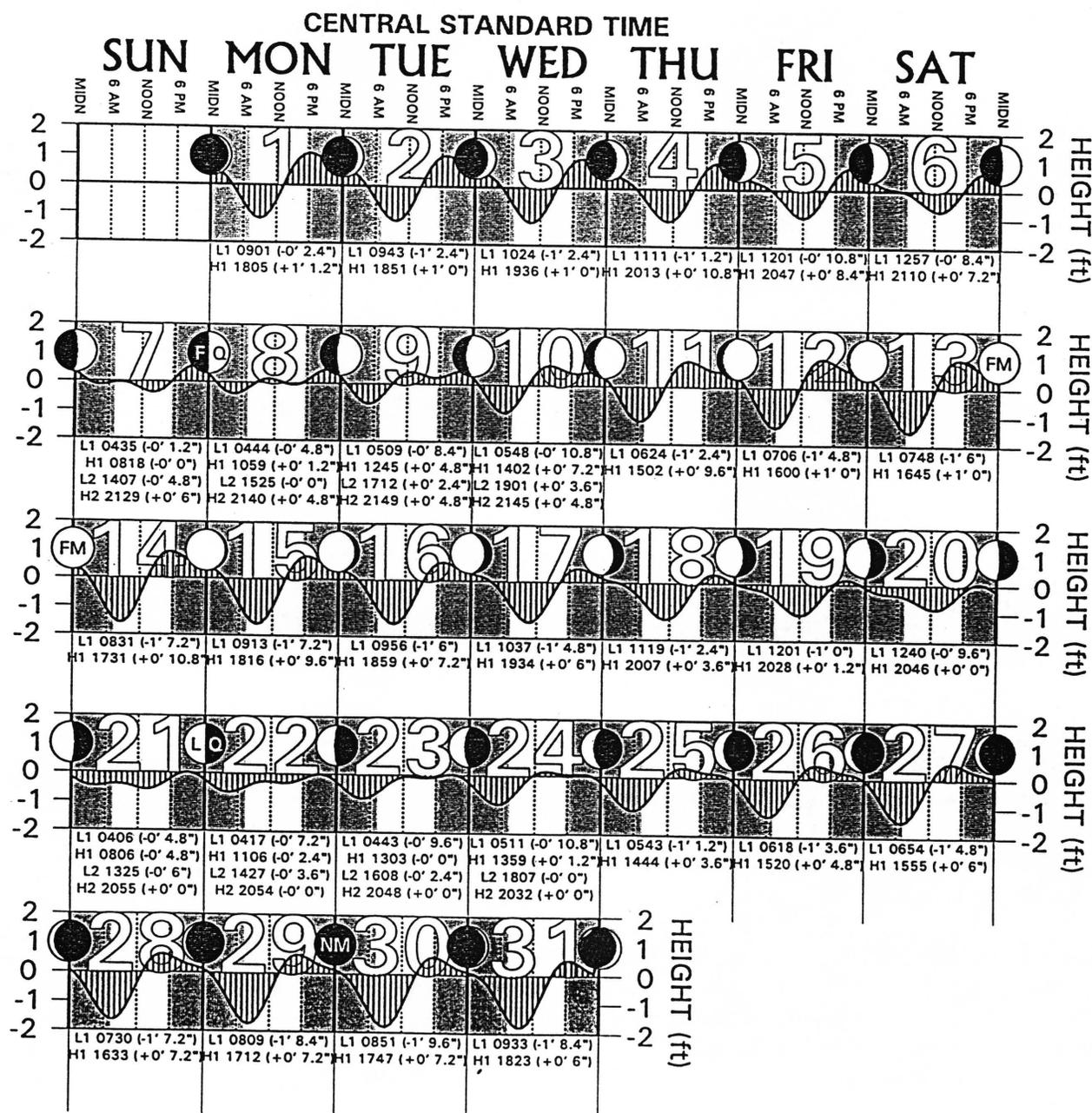
Clark Hubbs — Clark Hubbs (UT Zoo Department Professor Emeritus and MSI Advisory Council Member) has been selected by the Texas Academy of Sciences as their 1998 *Scientist of the Year*. He will officially receive the honor at their annual meeting at the University of Texas at Tyler next March. Dr. Hubbs will also be making a major presentation at the meeting on the subject of the current status of Texas fresh water fish. Last September, at the meeting of the American Fisheries Society, Dr. Hubbs was awarded two plaques: one as a Golden Member and the other as an Honorary Member. Clark says the *Golden* is for being a member 50 years, but the *Honorary*, is the best since it means he no longer has to pay his dues. Clark says he has *had lots of fun* in his long career. Those who know him also know he is not about to stop now.

Tony's Tidings...



(Tide predictions are 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 at full flood or ebb.)

DECEMBER

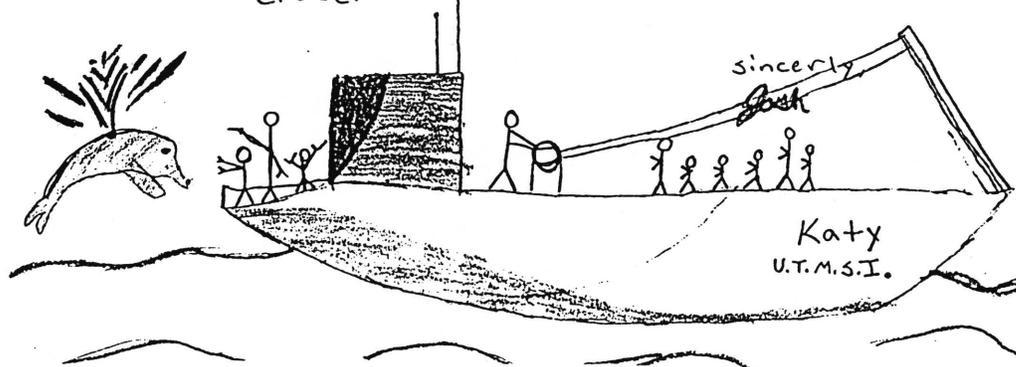


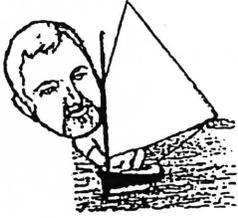
Weather Report for 3 November — 7 December 1997

3 - 9 NOV 1997	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	3	4	5	6	7	8	9	
AIR TEMP . . . HIGH	75.9	78.0	81.1	70.8	63.5	73.6	70.8	73.4
AIR TEMP . . . LOW	59.1	71.2	71.9	60.2	53.2	59.0	66.9	63.1
SEA TEMP . . . LOW	69.0	--	72.8	--	67.2	--	69.5	69.6
RAINFALL . TOTAL	0.00	0.00	0.61	0.03	0.00	0.00	4.17	4.81
10 - 16 NOV 1997	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	10	11	12	13	14	15	16	
AIR TEMP . . . HIGH	72.1	68.9	62.7	62.0	71.0	62.4	50.0	64.2
AIR TEMP . . . LOW	51.8	48.7	55.0	53.4	53.9	42.4	43.7	49.8
SEA TEMP . . . LOW	--	64.1	--	63.6	--	59.8	--	62.5
RAINFALL . TOTAL	0.51	1.03	0.24	0.00	0.00	0.04	0.00	1.82
17 - 23 NOV 97	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	17	18	19	20	21	22	23	
AIR TEMP . . . HIGH	55.9	53.2	54.3	63.8	72.2	72.3	66.3	62.6
AIR TEMP . . . LOW	48.5	50.7	48.3	50.1	60.2	54.1	53.7	52.2
SEA TEMP . . . LOW	58.3	--	58.8	--	61.1	--	59.8	59.5
RAINFALL . TOTAL	0.41	0.20	0.00	0.00	0.00	0.00	0.00	0.61
24 - 30 NOV 1997	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	24	25	26	27	28	29	30	
AIR TEMP . . . HIGH	69.8	72.8	76.6	74.4	76.2	77.7	68.9	73.8
AIR TEMP . . . LOW	57.3	63.8	62.7	66.0	63.8	61.7	53.2	61.2
SEA TEMP . . . LOW	--	62.8	--	65.2	--	63.5	--	63.8
RAINFALL . TOTAL	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.11
1 - 7 DEC 1997	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	1	2	3	4	5	6	7	
AIR TEMP . . . HIGH	65.4	69.9	70.7	62.6	63.6	63.1	68.3	66.2
AIR TEMP . . . LOW	57.2	60.8	55.4	47.4	48.3	52.7	62.0	54.8
SEA TEMP . . . LOW	60.6	--	64.9	--	60.4	--	62.0	62.0
RAINFALL . TOTAL	0.00	0.02	0.00	0.00	0.00	0.00	0.08	0.10

Thankyou for taking us on such an interesting field trip. I really enjoyed watching those cool fish and shrimp. Thank you for letting us look through the microscopes and telling us how to use them. And last but not least, thanks for taking us on the ocean cruise.

—Tony Amos





Thanks to Claire Fernandez for her abstract and autobiographical bit and to Joan Holt for her assistance. Claire asked if we had ever met "face to face." I did not recall, but thought she must have been in my office at least once to complain about something. Claire says no, so a new record has been established. Since it is the fifth Christmas for the *Lazarette Gazette*, sufficient time has passed for *Christmas in Port Aransas* to be recycled, it having first appeared in 1992. Actually, it was first a Cub Scout skit which turned out in execution to be quintessential *Port Aransas*. As each verse was read a

somewhat chubby little Cub Scout came across the stage on a skateboard. The Cub Scout/Surfin Santa was the son of a PA commercial fisherman who supplied Surfin Santa's bag, adapted quickly from a piece of fish netting and containing some long-dead-but-still-stinking crabs and hardheads. Texas Ranger Walker did not mean to make light of Tony Amos; Ranger Walker likes and appreciates famous Amos. And Walker even managed to find something semi-nice to say about aggies. This is not related to anything in this issue of the *Lazarette Gazette*, but I have to ask the question: did anyone else who saw the cover of the new *Official Directory* (UT phone book) have it cross their mind that the heavy weight fellow in the drawing (famous artwork) looks like President Clinton in his *bvd's*?

—John Thompson

I am very happy that I got a chance to go on the boat. I am glad we met Linda as our person to schedule the trip out on the Katy. Everyone is glad we met Bob and Jenn because we learned alot of special things. I knew a lot of the stuff, but I did not know about the squid or the lizard fish or about that machine next to the wheel that Captain John said detected the height of the water.

Sincerely,

Robbie Stubbs

Sorry, I cannot draw!

