

The Lazarette Gazette

NEWS FROM

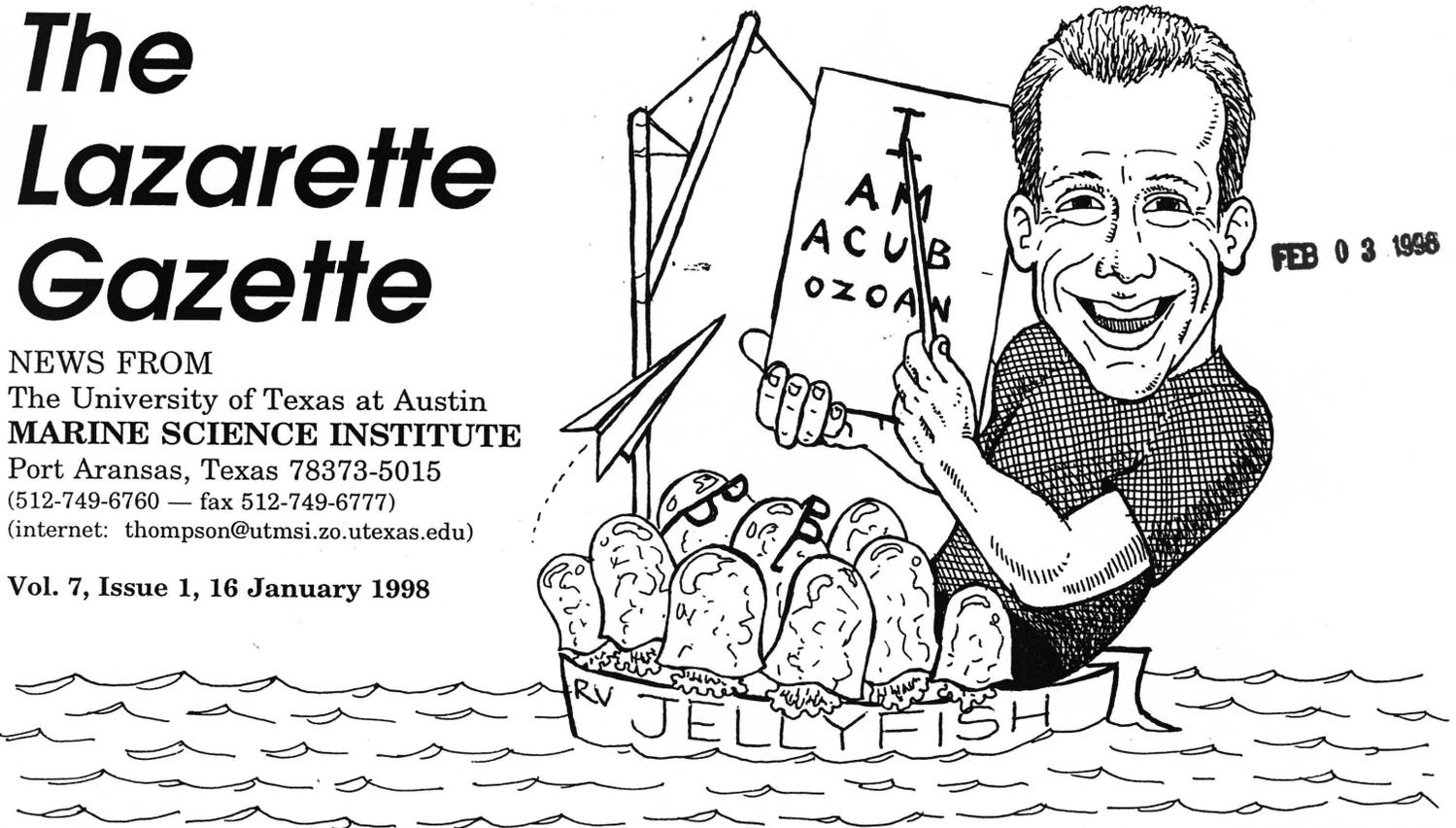
The University of Texas at Austin
MARINE SCIENCE INSTITUTE

Port Aransas, Texas 78373-5015

(512-749-6760 — fax 512-749-6777)

(internet: thompson@utmsi.zo.utexas.edu)

Vol. 7, Issue 1, 16 January 1998



In this issue of *Lazarette Gazette* —

Ed Buskey: **Scott Stewart, Ph.D.** cover

Scott Stewart: **Saying good-bye** 2

Scott Stewart: **The role of vision in the behavior of the medusa *Tripedalia cystophora* conant (cnidaria, cubozoa)** 3

John Thompson: **Noe, Rick, and John visit Laredo** 4

Regular sections: **students** — p. 1, **abstract** — p. 2, **trip reports & travel** — p. 3, **egabrac wocs** — p. 4, **irish pennants** — p. 5, **letters to the editor** — p. 6, **cruise reports & boat operations** — p. 6, **msi on the www** — p. 7, **personnel** — p. 8, **facilities & equipment** — p. 9, **tony's tidings** — p. 11, **editor's note** — p. 13

Students

Scott Stewart came to UTMSI in the summer of 1991 after finishing a masters degree at UCLA. He already knew exactly what he wanted to work on: studies of vision in cubozoan medusae. This was an area that I had no current research in, but because of my general interest in studies of zooplankton behavior the project interested me. However, since cubozoan medusae were not abundant in Texas coastal waters, Scott had to make arrangements to carry out his studies in Puerto Rico, at the Isla Magueyes Marine Station in La Parguera. He made several trips to Puerto Rico for several months at a time to carry out his research. Since I had no research funding to support Scott's project, Scott sought outside funding and was successful in getting a number of small grants to help with his research. He learned to be quite frugal with his funds and accomplished a lot with limited resources. Scott was also active in the local community during his

residence in Port Aransas, singing in the choir at the Community Presbyterian Church and acting in several of the local theater productions. Towards the end of his graduate career at UTMSI, Scott decided that he was interested in teaching at a small college after graduation. He participated in the college teaching internship program in Austin, and gained valuable teaching experience. He is now teaching at a small college in Wisconsin called Carroll College.

—Ed Buskey

How do I say good-bye to a place where I spent more time than any other since graduating from high school? In a way, by moving to Austin during my final two semesters, I managed to skip out without dealing with good-byes. I still have plans to return for a visit every once in a while, so maybe that gives me grounds to skip out some more.

With respect to my research and writing, many people at MSI helped me tremendously from 1991 to 1997. I did my best to list them all in the Acknowledgments of my dissertation. Many others helped me with life in general, including more MSI folks, those in Puerto Rico where I conducted my research, and the Port Aransas who I met largely through Community Presbyterian Church and the Port Aransas Community Theater. In many ways, aided by its small size, Port Aransas was the best place I've ever lived.

Perhaps many of you have never heard the following story, though you may be aware that I earned a Master's degree at UCLA before transferring to U. T. I entered UCLA's doctoral program in biology in the fall of 1989. I had what I would describe as a wonderful first year experience there and what I thought was a good relationship with my advisor. I think I was a bit too naive to notice some signs that all wasn't well with my world prior to the summer of 1990, but in June of that year I blithely went to the Sea of Cortez to work with my advisor in the field for one month. (I'll spare you all the many details of what transpired; if you want to know, you're welcome to ask me.) At the end, upon our return to Los Angeles, he called me into his office and said that he and his two companions all agreed that they didn't think I was capable of (1) getting along with anyone in the field, (2) conducting independent research and (3) earning a Ph.D. He told me to find a new advisor or go somewhere else; he refused to talk about it.

I, however, talked to as many people in and out of UCLA as I could. I received a lot of support from the vast majority of them. Upon their advice, I didn't leave UCLA without a degree, though it was a Master's by examination rather than by thesis, nor did I leave without a greater understanding of human nature. Comparatively, U. T. was at least purgatory if not paradise! MSI was where I learned to live with that psychological setback, one that I have yet to--and may never completely--overcome. To all of you who played a part in bringing me back up, whether you knew it or not, thanks very much.

I want to close on a more positive note by expressing my appreciation to a group of people at MSI who were a real pleasure to work with. Just a few days ago I was thinking about sending a letter of commendation to say this very thing, but I'll use this opportunity instead. During the time I spent the most time talking to and working with MSI Maintenance personnel (1994-1996), I was constantly impressed with their willingness to help me and with their expertise. I never got the impression that my piddly projects were too small for their full attention. To all the members of Maintenance: Thanks very much, guys! You made graduate school easier and more enjoyable for me, and I thoroughly enjoyed working with you.

—Scott Stewart

Abstract

THE ROLE OF VISION IN THE BEHAVIOR OF THE MEDUSA *TRIPEDALIA CYSTOPHORA* CONANT (CNIDARIA, CUBOZOA)

Scott E. Stewart, Ph.D.
Supervisor: Edward Buskey

Cubomedusae possess multiple lensed eyes, structurally similar to the image-forming eyes of other taxa, and non-lensed (pigment cup) eyes. My study concerned the ecological and behavioral roles of the eyes in the cubozoan *Tripedalia cystophora*. Methods included histology of both eye types, geometrical optics, laboratory experiments and quantitative field observations. According to geometrical optics, the lensed eyes have greater spatial resolution and sensitivity than the pigment cups; both types have excellent retinal illuminance. Computer models indicate that only a graded refractive index lens could focus an image on the retina in the large lensed eye, but the retina's resolving power cannot exploit a focused image. Even without neural pooling, *T. cystophora*'s eyes should be sensitive to a wide range of light intensities and able to determine the direction of light sources. Laboratory experiments revealed positive phototaxis but no essential role for vision in either mating or feeding. Medusae moved closest to artificial light levels corresponding to midday and early twilight intensities beneath the mangrove canopy but did not respond to a narrow intensity range occurring briefly between twilight and dawn. The bimodal nature of the positive response could be due to anatomical, neural and/or photophysiological reasons. The medusa demonstrated crude acuity and motion perception by positive responses to certain stripe widths in an optokinetic drum experiment, implying that *T. cystophora* can use its optical array for orientation in situ. In the field, medusae and their copepod prey gather in light shafts penetrating the mangrove canopy, where non-breeding medusae feed actively. Breeding males exhibited indiscriminate pre-mating behavior (grasping); mating frequency was far below the proportion of eligible females in the immediate vicinity of breeding males. Vision, therefore, plays no obvious role in breeding males' efforts to locate and grasp females nor in copulation. This dissertation describes (1) the use of geometrical optics to estimate visual capability in cubozoan eyes, (2) a quantified study of phototaxis in medusae, (3) what may be the first optokinetic drum test performed with medusae, and (4) long-term, quantified observations of medusae in situ, including an account of cubozoan copulation as observed in the field.

Trip Reports & Travel

Travel ending between December 13 and January 16

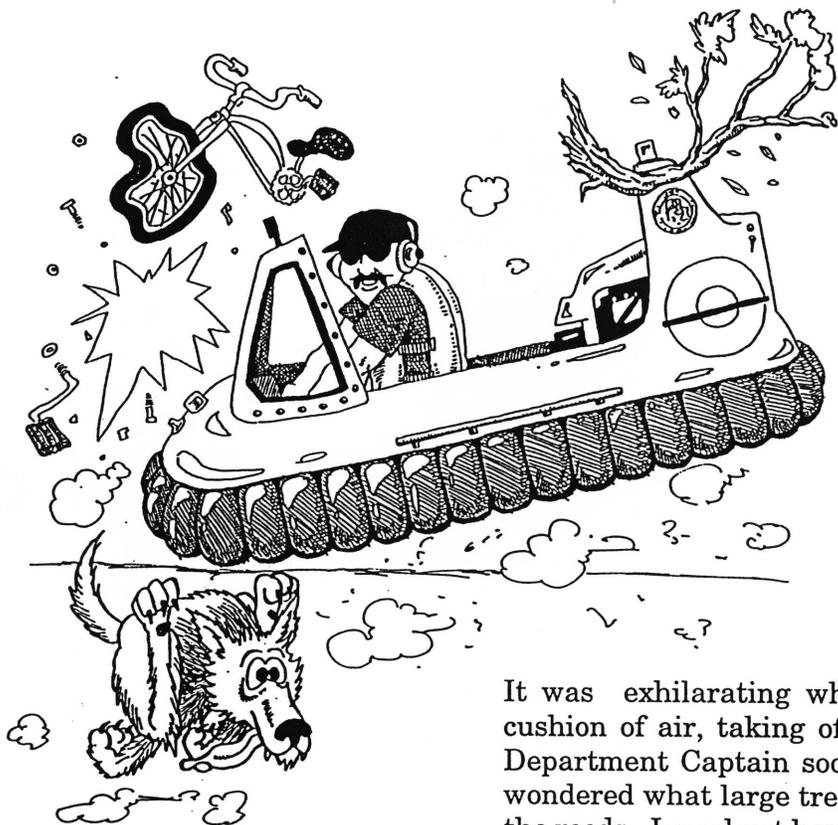
✦Ron Benner, January 5—9, Sea Brook Island, South Carolina, to attend a workshop sponsored by the National Science Foundation on the future of ocean chemistry in the U.S.

✦Terry Whitley, December 12—17, San Francisco, California and Seattle, Washington, to attend Arctic Submarine and Southeast Bering Sea meetings.

✦Noe Cantu, Rick Kalke, John Thompson, December 19, Laredo, Texas, to see a demonstration of a hovercraft.

✦Tony Amos, December 10—20, Hamburg, Germany, to discuss joint paper and data analysis of Antarctic hydrographic data collected by UTMSI and Alfred Wegener Institute in Germany.

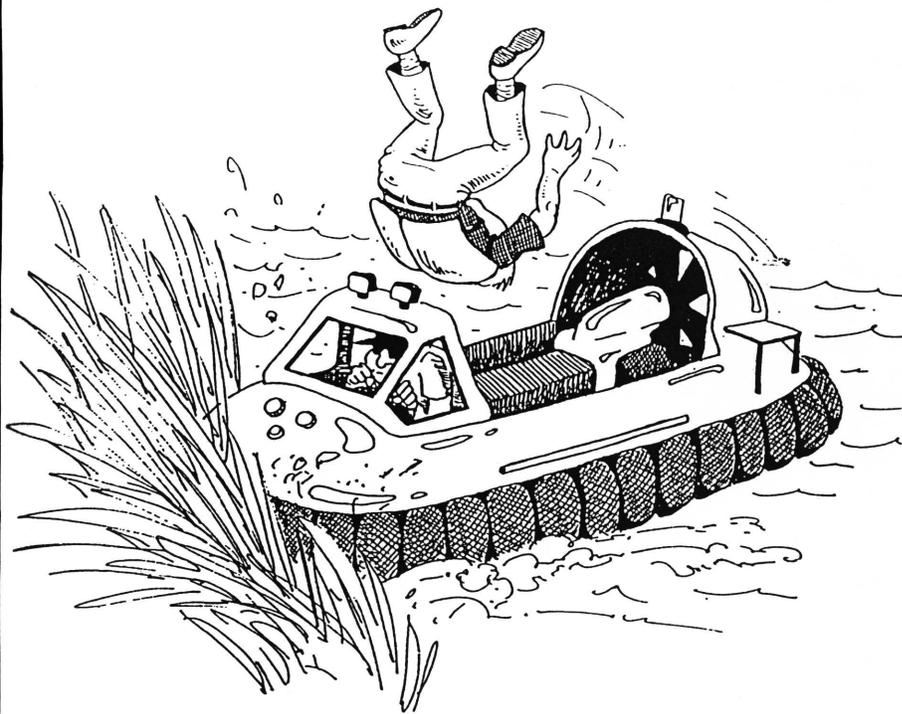
Noe, Rick, and John visit Laredo — MSI is considering the purchase of a hovercraft. Noe Cantu, Rick Kalke, and I left early one Friday this past December to inspect one operated by the Laredo Fire Department. As we approached Alice, there was a unanimous craving for donuts, but there are no Dunkin Donut places. However, in Premont we stopped at a decrepit old ex-service station now converted to a bakery and purchased a dozen of the best donuts ever known to man. Thus ended the good part of our trip.



First there was a demonstration of the hovercraft in a city park. Noe successfully operated the hovercraft over the grass and parking lot. After lunch we went to a lake for the water demonstration. The Fire Department mostly uses their hovercraft to look for drowning victims in the Rio Grande, but they suggested a lake instead. (Raw sewage in the river is so plentiful that they always wear protective gear and afterwards not only take a long hot shower but bathe in alcohol.) As I climbed aboard I thought how great it was to get out of the office for a change, to eat those wonderful Premont donuts, and to get to ride around the lake in style on a modern hovercraft rescue vehicle. I was only right about the donuts.

It was exhilarating when the hovercraft revved up and rose on a cushion of air, taking off at high speed with spray flying. The Fire Department Captain soon headed for a large green mass of reeds. I wondered what large tree trunk or iron pipe might lurk hidden behind the reeds. I need not have worried—the hovercraft was first stopped by the reeds, and suddenly. There are no hand holds for the passenger; perhaps if I had it to do over I would wrap my arms around the hefty macho fire captain—perhaps not. Whatever, the result was a fast tumble forward followed by an upside-down landing. After it was determined the hovercraft would not have to transport my cadaver back to the landing, we continued.

But the Laredo Fire Department does not easily admit defeat. Soon the Captain did it again! This time I landed right-side-up, but the hovercraft was entangled in reeds. We tried hard to get her out by pulling on the reeds, but it was apparent someone would have to get in the cold and muddy waist-deep water to push. The Captain and I then engaged in a silent waiting game to see who would volunteer. In retrospect I realize he was more accustomed to putting out fires than jumping into lakes, even if only waist-deep. Now I, on the other hand, am more accustomed than I really care to admit to jumping into the water and pushing off the *SOMETIMES*, or one of the other 7 sailboats which preceded her, when I have managed to run aground. But that water was cold and muddy; I did not have a change of clothes; and we planned to go to Nuevo Laredo for a good meal that evening; besides, he was the one who ran us into the reeds.



Finally he jumped in and pushed us off, but only after much trying and after I scrambled around to aft (Are nautical terms appropriate? Is this thing more boat or more aircraft?) of the propeller housing and leaned my posterior out as far as it could extend, bringing the bow (nose?) out of the water and my good shoes under the water. After several unsuccessful attempts the hefty captain managed to get back aboard. Meanwhile we had taken on about a thousand pounds of water in a craft designed for 600 lbs. (the Captain and I were already crowding that). Not to worry, I was told. The bilge pump would take care of it as we returned across the lake and to the landing.

With that weight, the hovercraft did not hover. The bilge pump, which had worked fine while we were stationary, was not pumping. With the prop going air blew back water from the chamber where the intake was located. I tapped the Captain on the back and pointed (you can't talk with the engine roaring and wearing hearing protection). But he was hunched over the controls trying to coax the last extra rev out of the engine in a futile attempt to get airborne. UNTIL we took a wave over the bow (nose) and became neither aircraft or boat but rather a submarine. THEN he stopped. The bilge pump worked and in ten minutes the water was in the lake where it belonged. We achieved lift and soon were back at the landing. Our lateness and wetness prevented pretense nothing special had happened. The eyes of the Captain's young Fire Department Driver, who had been waiting at the dock along with Noe and Rick, twinkled somewhat as we told our story, but he refrained from open laughter or derisive comment—Noe and Rick did not refrain.

—John Thompson

Irish Pennants

Celebration of Whooping Cranes and other Birds Festival — The second annual bird festival will be held in Port Aransas February 26 through March 1. Many MSI personnel participated in the first festival last year and MSI and MSI folks will be playing an even larger role in this year's festival. Visitors will be able to enjoy seminars, workshops, nature boat trips, Whooping Crane boat trips, and walk the aisles of a trade show offering nature items such as books, artwork, bird houses, jewelry, clothing and nature oriented crafts. Birding tours will be offered to Port Aransas birding centers and shorelines.

Texas Vanishing Wildlife Art Show — original works by internationally acclaimed wildlife artist Gamini Ratnavira will be at the Convention Center. In addition, Mr. David Giesen of the *Noyo Theatre* of San Francisco will perform a presentation depicting naturalist James Audubon.

This year most seminar sessions will be presented at the Marine Science Institute Visitor Center Auditorium. Marine Science Institute scientists scheduled to make presentations include Ken Dunton, Tony Amos, and Scott Holt. For additional information on the festival, contact the Port Aransas Convention and Visitors Bureau, P. O. Box 356, Port Aransas, Texas 78373; 512-749-5919 or 1-800-452-6278.

Letters to the editor

■ Many thanks for sending the *Laz Gaz*. I enjoy hearing about past and present activities at MSI, although I notice that anecdotes of various disreputable activities seem to pre-date the statute of limitations by a safely wide margin. Are the current crop more law-abiding than their predecessors or just less inclined to be caught? Thanks also for the Season's greetings, featuring what looks like the prosperous and newly-respectable offspring of the Texas Punkfish of the early '80s. The last time I saw him, Richard Davis had effected a similar transformation, although appearances can be deceptive. Would you please note my new address: *Hugh MacIntyre, Horn Point Laboratory, PO Box 775, Cambridge, MD 21613; 401-221-8430; macintyr@hpl.umces.edu*

(Hugh L. MacIntyre, M.A., 1988 (Ph.D., Univ. of Delaware))

■ I enjoy the newsletter! Keep sending it! My present permanent address is *Peggy Odum Winkler, 960 Live Oak Circle, Austin, TX 78746*. (Peggy is short for Margaret and Winkler is my married name. I married Dr. Matt Winkler of UT Austin Zoology Department years ago and we have three boys.) I enjoyed seeing Rick Tinnin at my oldest son's elementary school (Eanes Elementary) last year on Ocean Week. All the teachers LOVE Rick!!! We were sorry to miss the reunion last year. Matt and I met at the Marine Lab in 1983 when he came down to give a seminar. I was a graduate student at the time.

(Margaret A. Odum, M.A., 1985)

Cruise Reports & Boat Operations



Cruise #98-702 — This was a brown tide cruise for Dr. Ed Buskey's National Science Foundation study. The *R/V LONGHORN* got underway on January 13 at 0725 with visibility of 1/8 mile which increased to 1/4 mile about half way down the channel towards Ingleside. By the time we crossed Corpus Christi Bay conditions had cleared to 1/2 mile visibility and beyond the Kennedy Causeway bridge it was clear. We did several CTD stations and deployed the Whaler several times so tows could be made in shallower water. After arrival at Baffin Bay we did another CTD station and tied up at some pilings for the night. We returned back to Port Aransas at 1400 the following day. Chief Scientist was Ed Buskey. Other UTMSI scientific personnel aboard were Dean Stockwell, Kevin Neely, Gretchen Westrick, Hongbin Liu, Jose Bersano, Lynn Tinnin and Archie Ammons. Stanley Dignum was aboard as marine tech in place of Chuck Rowe, who is currently in the Antarctic. Chief Scientist Ed Buskey reported, *Successful cruise, no problems.*

—Noe Cantu

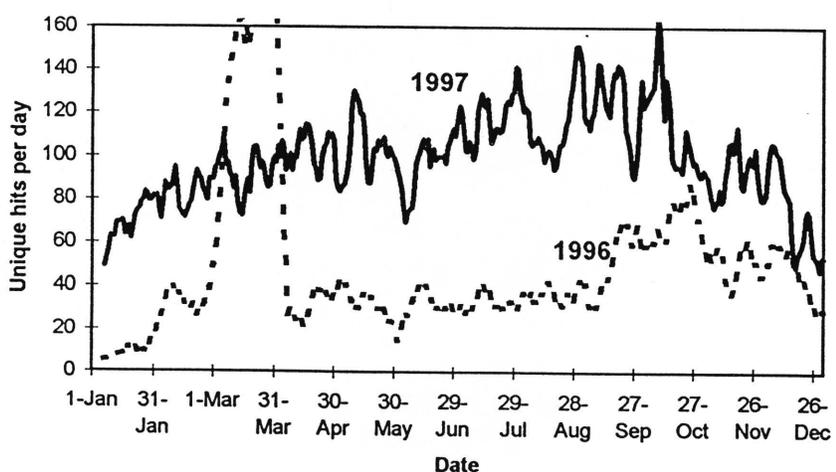
Hovercraft versus Airboat — There is considerable interest among MSI personnel in the status of our quest for a hovercraft or airboat. Elsewhere in the *Lazarette Gazette* (Noe, Rick and John visit Laredo — *Egabrac Wocs*) a few rocks appear to be thrown at the hovercraft option. The matter is by no means settled, but hopefully a decision can be made without further assistance by the Laredo Fire Department. Thanks to several members of the MSI Advisory Council, and particularly Ed Fleming, head of the Advisory Council's Boat Committee, funds have been donated to purchase some craft to help MSI scientists in their work in the shallowest water. While originally it was assumed this would be an airboat, a hovercraft was later suggested as possibly a better alternative. Airboats are fairly common in the area

but hovercraft are rare, although a few used strictly for light loads and recreation operate in South Texas. Through a lead found on the internet a company in Wisconsin was located. Two of their promotional video tapes have been reviewed by several members of the scientific staff as well as Noe Cantu and John Thompson. The videos looked promising so arrangements were made for a demonstration by the Laredo Fire Department, nearest owners. The model 600 operated by the Fire Department has a capacity of only 600 lbs. while the model 700 has a capacity of 1,000 lbs. The Fire Department wishes they had a model 700. The unsuccessful encounter with reeds should not have happened in that the company states up front the hovercraft cannot handle reeds. Our observations were: it is a "neat" and attractive package; mechanically it is simple and straightforward and mechanical maintenance does not appear to be a problem; the airbags do seem to be a cleaning and maintenance nuisance; cockpit space is limited; working over the side is not convenient; speed and performance are greatly diminished by a fresh breeze and small waves; slower speed operation is difficult; while not as loud as many airboats, it is nevertheless loud and hearing protection is a necessity. In short, it was determined that at least this particular hovercraft would be unsuitable and inadequate for much shallow water work by MSI scientists. However, it may be that a larger model or a hovercraft by a different manufacturer will not have these deficiencies. The obvious advantage of the hovercraft is, of course, that it can even travel across dry land if necessary. But it does not appear to have the carrying capacity of an airboat, or at least airboats of the same cost, nor would it be as handy to work over the side. The MSI marine operations staff will continue to investigate both options and assemble information for consideration by the Director and those members of the scientific staff who work in extreme shallow water.

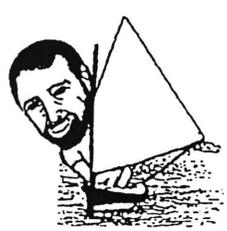
—John Thompson

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

Visitors to the MSI Web Site



Year-End Summary



Our WWW site just celebrated its second birthday. Throughout 1997 the site enjoyed an almost three-fold increase in the number of visitors. We averaged 98 visitors per day and just under 3,000 per month. The busiest time was October, when college seniors are looking for graduate schools. One of the recent changes to the site includes Ed Buskey's posting of a graduate research opportunity, complete with photos of his work in Belize. Tony Amos' monthly tide tables were updated for 1998, and the availability of several graduate fellowships was announced. Check our *What's New* link to find these.

—Lee Fuiman

Personnel

Hayden Abel — Hayden is back at work following some weeks in the hospital and several more weeks at home. Hard to believe, but it has been reported by a usually reliable source that Hayden, since his return, has actually been observed on at least one occasion when he was not smoking.

Allen Davis — Allen is recovering at home after a four day stay in the hospital with pneumonia. He still has yet to recover his voice and those who know him well are enjoying the quiet!

MSI employees proud parents of —

H. G. Olsen Elementary First Semester A Honor Roll:
Yun Liu (second grade)

H. G. Olsen Elementary First Semester A/B Honor Roll:
Matt Dunton (third grade)

Brundrett Middle School First Semester A Honor Roll:
James Cantu (sixth grade)
Lauren Kalke (seventh grade)
Karli Dunton (eighth grade)
JoAnna Jackson (eighth grade)
Tess Montagna (eighth grade)
Stephanie Tinnin (eighth grade)

Brundrett Middle School First Semester A/B Honor Roll:
Dani Buskey (sixth grade)
Jack Montagna (sixth grade)
Brince Abel (eighth grade)
Nikki Buskey (eighth grade)
Ashley Harris (eighth grade)

Port Aransas High School First Semester A Honor Roll:
Rachel Pearson (ninth grade)
Nathan Dunton (tenth grade)

Port Aransas High School First Semester A/B Honor Roll:
Kate Montagna (tenth grade)
Patricia Tinnin (tenth grade)
Matt Pearson (eleventh grade)

Brenda Black — Congratulations to Brenda, who has recently been promoted to Research Scientist Associate I from Research Scientist Assistant. Brenda has worked in Ron Benner's lab for over five years.

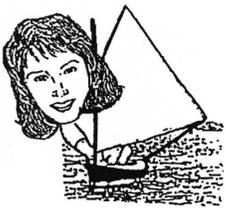
Izhar Khan — Dr. Izhar Khan has recently been promoted to Research Associate from Research Scientist Associate I. Izhar has worked with Peter Thomas for over seven years. Congratulations!

Tara Holmberg — Some of you may have noticed new faces in the hallway. Tara Holmberg is one of those new faces. She has recently joined the graduate students here in Port Aransas after her stint in Austin. She is a Master's student under the supervision of Dr. Paul Montagna.

Judith Bergeron — Another new face is Dr. Judith Bergeron who has recently joined Peter Thomas' lab as a postdoc. Initially, her research will focus on the molecular biology of steroid receptors involved in the reproductive physiology of the Atlantic croaker. Information gained from these studies will hopefully lead to a clearer understanding of how environmental contaminants may affect reproductive function. Joining Judy on her coastal ventures is her husband, Javier Garza, an engineer with Texas Natural Resource Conservation Commission (TNRCC), who has transferred from Austin to the TNRCC regional office in Corpus Christi, and their eight "children" three dogs, four cats, and a cockatiel. They will be calling Ingleside home.

Hongbin Liu — Dr. Hongbin Liu is a new postdoc in Ed Buskey's laboratory who arrived just before Thanksgiving. He will be working on brown tide research. He has just finished a Ph.D. in Oceanography from the University of Hawaii at Manoa under the supervision of Dr. Lisa Campbell (now at Texas A&M) and Dr. Mike Landry. His bachelor's degree is from Qingdao University in China, where he knew former MSI student Chen Feng. He shared an office in Hawaii with another of Dr. Buskey's former students, Susan Brown, who is now working on a Ph.D. with Mike Landry. Small world, isn't it? Hongbin and his wife Xie have two children, a son, Yun, who is a second-grader at Olsen Elementary School, and daughter, June, age two.

Lorraine Stern — Lorraine Stern has joined Tracy Villareal's lab temporarily as a Research Scientist Associate I. She lives in Port Aransas with her husband, Adam and their children, Valerie and Eric. Previously she worked at Hoffmann-La Roche in Nutley, New Jersey for 14 years. She ran the *in vivo* section of the Tumor Biology Group in the Department of Oncology.



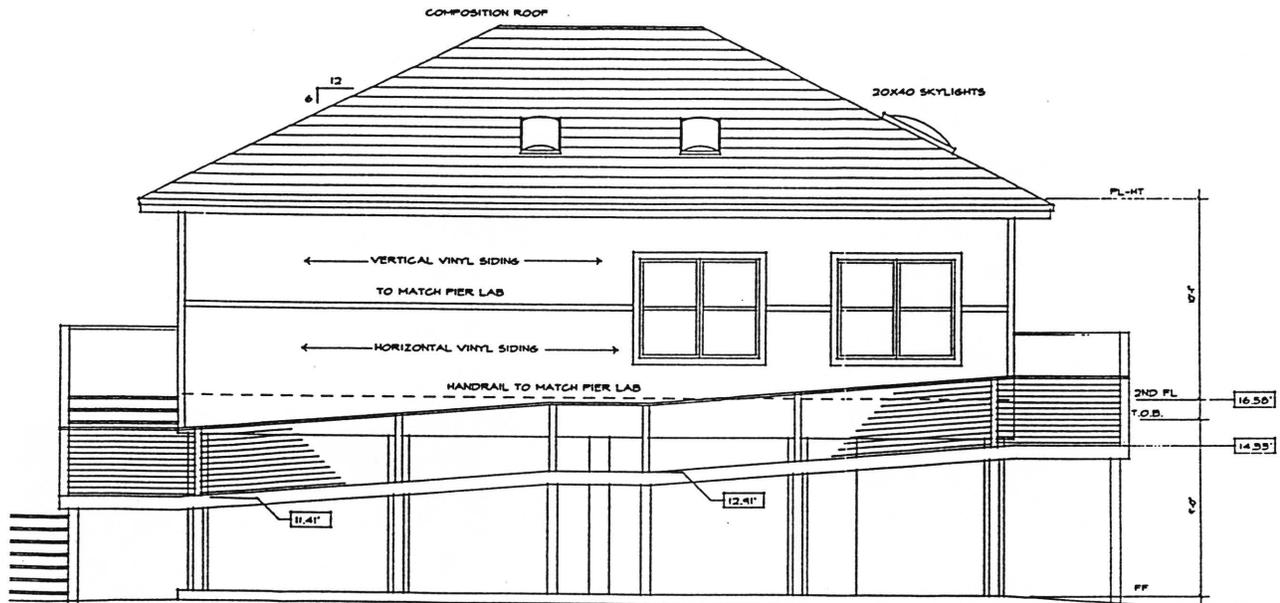
— Personnel section by Patty Webb with contributions from several MSI staff (including МЫ НЕ ЗНАЕМ).

Facilities & Equipment

Warehouse — Island Construction of Port Aransas has finished the warehouse building. A final inspection was made with no deficiencies found. The 10,500 square foot warehouse is located South of the University Apartments on Beach Street. Materials are on order for the electrical, which will be completed by MSI Physical Plant personnel. MSI personnel will also be constructing metal shelving on site. Landscaping will complete the project.

Boat Shop — GCC Constructors of Corpus Christi resumed work following a delay due to delivery of the steel. Completion was originally scheduled by February, but now seems doubtful.

ARK — The Animal Rehabilitation Keep project should be out for bids soon. Final plans and specifications are being completed.



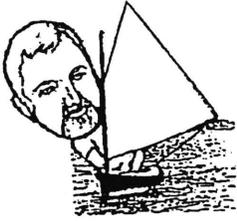
Marsh — Four firms responded with written proposals on planning and consulting services for the Wetlands Education Center. Members of the Project Oversight Committee, John Thompson, Ken Dunton, Joan Holt, Bob Huntington, and Ed Buskey met with Rick Tinnin, Project Manager, on Wednesday, January 7, to review the proposals. Oral presentations will be heard January 29. Those who have expressed an interest are Belaire Environmental, Inc.; Island Botanics; Espey, Huston & Associates, Inc.; and Shiner, Moseley and Associates, Inc. Selection of the consultants is expected soon after in February.

Mechanical/Communications Projects — A request is pending for a new phone system for MSI. The existing MSI system operates with an obsolete digitizing scheme which cannot integrate with voicemail or support display type telephone systems; cannot connect digitally with local or long distance service providers or provide digital service to telephone sets or features such as caller id and ISDN. If approved, a new state-of-the-art system would be provided. **Backflow prevention valves** were recently installed at both the main campus and FAML. A **new concrete curbing** has been provided at the South campus entrance which provides vehicular protection to the valve vault while improving the appearance of one of the main entrances to the MSI campus. A final engineering review should be complete soon and allow purchase of two **new sterilizers and steam generators** for the main laboratory. Engineering should also be completed soon so that purchase and installation of a new **fluid cooler** for the FAML main building can be accomplished before hot weather sets in this summer.

Weather Report for 8 December — 11 January, 1997

8 - 14 DEC 1997										
	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN		
DATE	8	9	10	11	12	13	14			
AIR TEMP ... HIGH	70.5	70.7	60.1	50.7	46.2	53.4	61.5	59.0		
AIR TEMP ... LOW	58.1	59.5	50.7	44.2	40.8	37.2	38.8	47.0		
SEA TEMP ... LOW	--	64.0	--	--	--	--	--	--		
RAINFALL TOTAL	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.04		
<hr/>										
15 - 21 DEC 1997										
	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN		
DATE	15	16	17	18	19	20	21			
AIR TEMP ... HIGH	63.3	69.9	69.9	69.2	73.7	69.9	64.7	68.6		
AIR TEMP ... LOW	42.4	47.4	47.4	46.9	58.6	64.7	51.0	51.2		
SEA TEMP ... LOW	--	--	--	--	--	--	--	--		
RAINFALL TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12		
<hr/>										
22 - 28 DEC 1997										
	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN		
DATE	22	23	24	25	26	27	28			
AIR TEMP ... HIGH	69.0	72.1	68.0	65.1	61.7	54.8	62.4	64.7		
AIR TEMP ... LOW	53.7	58.2	50.7	53.9	44.6	40.6	40.2	48.8		
SEA TEMP ... LOW	--	--	--	61.7	--	52.1	--	--		
RAINFALL TOTAL	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.14		
<hr/>										
29 DEC 97-4 JAN 98										
	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN		
DATE	29	30	31	01	02	03	04			
AIR TEMP ... HIGH	64.0	66.0	62.4	70.5	71.2	75.2	72.1	68.8		
AIR TEMP ... LOW	41.0	43.5	51.2	61.3	65.1	64.4	63.8	55.8		
SEA TEMP ... LOW	--	--	--	--	--	--	--	--		
RAINFALL TOTAL	0.00	0.00	0.00	0.03	0.00	0.10	0.00	0.13		
<hr/>										
5 - 11 JAN 1998										
	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN		
DATE	5	6	7	8	9	10	11			
AIR TEMP ... HIGH	69.4	62.0	67.8	68.3	71.4	71.0	72.6	69.4		
AIR TEMP ... LOW	64.5	61.8	50.5	45.8	50.3	61.5	64.2	63.8		
SEA TEMP ... LOW	--	--	--	--	--	--	--	--		
RAINFALL TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

—Tony Amos



My screen saver has pictures of sailing accidents—dismasted sailboats, sinking sailboats, crashed sailboats—to remind me it is not so bad to sit in one's office. I should add a hovercraft, although I will not soon forget my fun with the Laredo Fire Department. A Port Aransas neighbor has a smaller hovercraft, and I was vaguely aware daughter Jill had been on it. NOW I find not only has Jill been *out on it* but she has also twice, due to unplanned sudden stops, been thrown *out of it*. The *LazGaz* would welcome guest *editorials* on the subject *hovercrafts versus airboats*. Final chapter to the Laredo trip: we walked across the bridge to Mexico and a restaurant, highly recommended to all of us by several different folks, and were we ever ready for great food. The Margaritas were good; the food not. By the time we got back to Port Aransas we had finished our Premont donuts. Thanks to Mike Gibson for his great art work in this issue of the *LazGaz*. Thanks to Scott Stewart and Ed Buskey for their help and to Joan Holt for information on the birding festival. This issue begins our seventh year for the *Lazarette Gazette*. If one compares the latest honor roll report from Port Aransas schools to earlier years, one notes the migration of the majority of MSI children to middle school. It must be time to hire some more younger staff. Perhaps it is the time for a few of us to get out of the way so it can happen.

—John Thompson