SHELL-O-GRAM

Published By The Jacksonville Shell Club, Inc.

November December, 1998 **Volume 39(6)**

November Meeting

The November 19th meting will be held at the Southeast Branch Library at 7:00 PM (note the change from the 4th Tuesday of the month to the 3rd Thursday).

The educational program will be a scripted slide show entitled "What is a fossil?" by Harold and Emily Vokes - formerly of Tulane University.

The Shell-Of-The Month will be presented by Harry Lee on *Turbinella regina* Heilprin, 1886, a large Pliocene fossil found in south Florida.

As is customary, refreshments will be served. Make a note on your calendar now and plan to attend and bring a guest.

December Meeting

The traditional Christmas Party will take the place of our December Meeting. It will be held at the home of Carol and Richard Rishel in Atlantic Beach on Saturday, December 19th at 6:00 PM (see the map on page 9 for directions).

As is our custom, each attending member is asked to bring a small shell-related gift (no more than $10 in value) for a member of the same sex. Also, plan to eat dinner at the party as the Club is providing the entrée. Please bring a side dish or *hors d'oeuvre*. The club will also be providing soft drinks and mixers. If you desire something stronger, BYOB.

Call Carol at 247-7876 to coordinate which food items you are bringing or if you need further directions.

Carrabelle Revisited

By D.D. Jewell

As many of you know, the club's last visit in 1996 to the Carrabelle Scallop Dump was a great adventure for my husband Rob and me. That trip yielded us many great finds including *Scaphella junonia* (Junonia), *Pleuroploca gigantea* (Florida Horse Conch), *Fasciolaria tulipa* (True Tulip), *Fasciolaria lilium hunteria* (Banded Tulip), *Chicoreus florifer dilectus* (Lace Murex), *Phyllonotus pomum* (Apple Murex) and a complete *Lyropecten nodosus* (Lion's Paw).

Ever since then, Rob has pleaded with me to return for a three-day weekend, but I always persuaded him to travel down to Venice or Sanibel instead of out in the middle of the woods with the dog fennels, occasional Coral Snake or any of the other critters that call that area home.

Bill Lyerly, our notorius club joker, didn't help any either when several times he duped Rob into thinking he and other members had made it back to Carrabelle without him. So, finally after putting him off a number of times, I agreed to take the Labor Day Weekend and return to his beloved Carrabelle with the stipulation that I could have one day of shopping in Panama City.

Our normal haunt, the Georgian Motel, was fully occupied on the Labor Day Weekend, which forced us to stay at the Rancho Inn in Apalachicola. With thoughts of shovels and full 5-gallon buckets dancing in our heads, we eagerly awaited our trip. Then he came! Hurricane Earl breathed down directly on the Panhandle three days before our departure date. Weather newscasts showed St. George Island being manhandled. We could only imagine what was happening to poor Carrabelle, but then we thought if Earl managed to leave town by the time we arrived, the beaches could possibly be filled with a lot of shells washed in from the storm. **(Continued on page 7.)**

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The Shell-O-Gram is issued bimonthly and mailed to all regular members. Annual membership dues are $12.50 individual and $15.00 family. Lifetime membership is available.

Send dues to: Teresa St. John, Treasurer
2605 Emily Court
Jacksonville, FL 32216-5101

The club meets the fourth Wednesday of each month, 7:00 PM at the Southeast Branch Library, 10599 Deerwood Park Boulevard, Jacksonville Florida. Please address any correspondence to the club's address shown above.

Closing date for article submission is two weeks prior to the first of each month of publication. Articles may be republished provided full credit is given the author and this newsletter and one copy of the complete publication in which the article appears is mailed to Editor at the above address.

September Meeting Notes

At the September 22nd regular meeting of the Jacksonville Shell Club, the membership unanimously approved the nominating committee's proposed slate of club officers for the 1998-99 fiscal year which were:

President - Charlotte Lloyd - Phone: 246-0874, Email: Clloyd6888@aol.com
Vice-President - Caryl Plata - Phone: 821-0543
Secretary - D.D. Jewell - Phone: 443-6086
Treasurer - Teresa St. John - Phone: 725-1501
Board Members:
Carol Rishel - Phone: 247-7876
Craig Thorn - Phone: 471-3892
Bill Lyerly - Phone: 771-5632, Email: Blyerly@aol.com
Bill Frank - Phone: 724-5326, Email: Strombus@msn.com
Billie Brown - Phone: 241-3755
John Fatu (Past President) - Phone: 221-4230, Email: Tongajohn@aol.com

Meeting Day To Change In 1999

Beginning in January, the Jacksonville Shell Club will meet at the Southeast Branch Library on the fourth Wednesday of each month vice the present fourth Tuesday. The meeting time (7:00 PM) and room will remain the same.

Welcome New/Rejoined Members

Pat Renner
2340 Snook Dr.
Naples, FL 34102-1571
Phone: (941) 775-7406

Anita L. Blondin
1800 Park Ave. # 351
Orange Park, FL 32073
Phone: (904) 215-6246

Quint & Susan White
3040 Merlin Dr. N.
Jacksonville, FL 32257-5830
Phone: (904) 731-9283

President's Message

What a great time of year. Autumn is in the air - and it is a pleasure to be outdoors once again. It's time when our thoughts turn to --- shell collecting. A trip to Cedar Key is planned for the weekend of December 5th and 6th. Further details concerning the trip can be found on page 10.

Fletcher Middle School's Media Center is now the locale of a beautiful "Florida Marine Shells and Sealife Collection" compliments of the members of the club. We can all be proud.

Are you ready for a party? Out Christmas gathering will be hosted by Carol and Richard Rishel. We'll get together at 6:00 PM this year on Saturday, December 19th. Be sure to mark your calendar and give Carol a call to see what goodie to bring. Sure hope all our members will be able to attend this special event.

Harry, Bill Frank and I met with the "new" publisher last week - looks like our book is getting closer to being a reality.

Note the unusual day and date for our November meeting. See you there and bring a friend!

Upcoming Events

January 22-24 - Greater Miami Shell Show - Miami Beach, FL. Contact Lilian Shin, 14913 S.W. 104th St. Apt. 24, Miami, FL 33196, Phone (305) 388-1467.
February 5-7 - Naples Shell Show - Naples, FL. Contact Howard & Susan Roux, 152 Coral Vine Dr., Naples, FL 34110, Phone (941) 514-0541, E-mail: **Conchman@naplesnet.com.**
February 12-14 - Broward Shell Show - Pompano Beach, FL. Contact Dave Kempfer, 1685 N.W. 65th Ave., Margate, FL 33063, Phone (954) 970-3636, E-mail: **Seanotes@aol.com**.
February 19-21 - Sarasota Shell Show - Sarasota, FL. Contact Peggy Williams, P.O. Box 575, Tellevast, FL 34270, Phone (941) 355-2291, E-mail: **Shellelegant@mindspring.com**.
February 26-28 - St. Petersburg Shell Show - Treasure Island, FL. Contact Bob & Betty Lipe, 348 Corey Ave., St. Petersburg Beach, FL 33706, Phone (813) 360-0586, E-mail: **Shellstr@gte.net**.
March 4-7 - Sanibel Shell Show - Sanibel, FL. Contact Vi & Jon Greenlaw, 2813 S.W. 43rd Lane, Cape Coral , FL 33914, Phone (941) 454-8659, E-mail: **Jsg@iline.com**.
March 11-13 - Marco Island Shell Club Show XIX - Marco Island, FL. Contact Sharon Rice, 1283 Treasure Court, Marco Island, FL 34145, Phone: (941) 389-2903.
May 29-31 Shellers' Jamboree - Largo, FL. Further details will be provided as they become available.

Another Milestone For The JSC

October marks the 38th anniversary of the Jacksonville Shell Club's (JSC) Newsletter, the Shell-O-Gram. The first issue, a modest single page in 8 1/2 x 14-inch format mimeographed affair, was the only issue to carry the title of Jacksonville Shell Club Bulletin. By the second issue in November of 1960, the newly born newsletter had been christened the Shell-O-Gram - the name being the brainchild of current lifetime member Mrs. Alberta Stacy. This moniker was chosen by club members via secret ballot from a list of submitted entries.

While today's newsletter includes an image of the official club shell, *Hexaplex fulvescens*, the second and a few subsequent issues featured a drawing of *Strombus gallus* (the Rooster-tail Conch) courtesy of Mrs. Elizabeth Eubanks, the editor, and her husband. Of course, the drawing, in this scribe's opinion (somewhat later improved), was of sufficient quality to leave the identification of the species illustrated in doubt.

If you thought that malacologists only study shells - think again. In 1991 Dr. Rüdiger Bieler (Delaware Museum of Natural History) and Dr. Alan R. Kabat (Museum of Comparative Zoology, Harvard University) did a review of Malacological Journals and Newsletters, 1773-1990.* In regards to the Shell-O-Gram, they noted the problems we have had in the past with erroneous volume and number labels - something which is evident when reviewing the 38 years of newsletters which I hold.
*Published in The Nautilus 105(2):39-61, 1991.

Last Call For Dues

Membership dues for the majority of Jacksonville Shell Club Members were due on September 1st. Check your mailing label for the exact month and year that your membership expires. For those still in arrears as of January 1st, this will be your last issue of the Shell-O-Gram and you will not be included in the club membership list to be published in January.

Don't delay - mail your check to Teresa St. John, the Club Treasurer, whose address appears on the second page of this issue.

Publications Available

A Sheller's Directory of Clubs, Books, Periodicals & Dealers, 22nd Edition 1998-99. This 114 page, 8 1/2 x 11" format, spiral bound book is available from Of Sea and Shore Publications, P. O. Box 219, Port Gamble, WA 98364, or Phone (360) 297-2426. The cost is $6.95 plus $1.50 postage for U.S. addresses.

Common and Scientific Names of Aquatic Invertebrates from the United States and Canada: Mollusks, 2nd edition by D.D. Turgeon, et al, American Fisheries Society Special Publication 26, 536 pp. paperback and CD ROM, $59.00 plus $4.50 postage. Order from American Fisheries Society, Publication Fulfillment, P.O. Box 1020, Sewickley, PA 15143, Phone (412) 741-5700. A review of the publication by Barry Roth (Santa Barbara Museum of Natural History) follows:

Through its Committee on Names of Aquatic Invertebrates ("the Committee"), the American Fisheries Society (AFS) has taken on the task of providing the public with authoritative lists of the scientific names of many animal groups as they occur in North America north of Mexico and to list the common names of those organisms. Where genuine, homegrown vernacular names do not exist -- as is of course the case for most invertebrates -- names have been coined by the authors/compilers of these lists based on an explicit set of AFS guidelines (pp. 14-16). The overall program

calls for revised and updated editions of the lists to be published at intervals; in the case of mollusks, the projected interval is a decade.

This, the second edition of the AFS mollusk book, updates the first edition (1988; see review in Veliger 33[2]: 207-208) and is the first volume in the second iteration of the Common and Scientific Names of Aquatic Invertebrates. It covers terrestrial, freshwater, estuarine, and marine mollusks, down to a depth of 200 meters on the continental shelf. In a number of ways, it is an improvement over the first edition.

An intense vetting process was undertaken to ensure that no pertinent information was overlooked (the list is supposed to be based on published records, species descriptions, and taxonomic revisions; p. 11). Sixty-one reviewers are singled out for special mention (p. 14), but many more undoubtedly examined the work in one or another of its preliminary stages. Draft versions were circulated at American Malacological Union meetings between 1993 and 1997. A version (excluding the bivalves and aplacophorans) was made available via the MOLLUSCA Internet listserver in 1995. Although, as with any compilation of such broad scope, individual specialists may disagree with parts of the published list, there was ample opportunity for them to make their views known to the authors during production of the book.

The extent to which the list departs from the first edition is apparent in appendix 1, "Changes from 1988 List and Comments" (pp. 167-307, just slightly longer than the list itself). The Committee's own plan requires that changes from one edition to the next be documented and justified in this manner -- a commendable form of accountability. The changes are predominantly ones based on the peer-reviewed literature appearing between 1988 and 30 July 1997 (the cutoff date for inclusion in the second edition). The documentation allows a critical user to decide whether a particular taxonomic assignment is likely to be creditable. Other changes clean up errors of spelling, date, and authorship from the first edition.

The lower bathymetric limit of 200 m. has been more rigorously enforced, leading to the exclusion of some taxa listed previously. Some first edition vernacular names, deemed inappropriate after further consideration, have been changed or deleted. A certain amount of undocumented taxonomic revision had crept into the first edition; some, perhaps most, of it is weeded out of this edition, improving the list's relationship to the authoritative literature.

Changed or added taxon entries in the main list are keyed by asterisks to explanations in Appendix 1. Within orders, alterations range from about 17% for Basommatophora (22 of 180 entries) to about 88% for Patellogastropoda (36 of 41 entries). For any group, a quick browse through Appendix 1 indicates that a complex and widespread literature impacts upon the taxonomy of North American mollusks and had to be addressed by the compilers of this volume.

Other appendices include lists of endangered, threatened, possibly extinct, and non-indigenous mollusks of North America (i.e., north of Mexico); an "Introduction to North American Mollusks" that may be a helpful refresher to those who have forgotten their basic invertebrate biology; brief remarks on techniques of collecting, preserving, and studying; a general bibliography of guidebooks and identification materials; and a useful summary of North American (again, north of Mexico) institutions with major collections of mollusks. Pages 361-509 constitute a combined index to the scientific and common names in the main list and appendices.

A 16-page "Portfolio of Mollusk Diversity" in artistic color photographs closes the work. The numerous contributors of these attractive images are acknowledged.

There is a mild irony in the dedication of the second edition to the late R. Tucker Abbott. In spite of the existence of the first edition, in his later popular books Abbott often chose not to adopt the AFS names but proposed new names of his own.

The accompanying CD runs a setup program that creates a folder named "mollusks" on the user's main drive, installs Adobe Acrobat=AE Reader 3.0.1, and displays on-screen facsimiles of the printed work. The display is in the form of several related documents with searchable text. In place of the book's index (not needed in a screen-searchable resource) is the Adobe online guide to navigating through the displayed documents. Asterisked scientific names in the main list are active links to the equivalent notes in Appendix 1.

There is not much new to be said, pro or con, on the philosophy of coined "common" names. Certain governmental agencies seem to need them to conduct their business, and given this reality, it is in everyone's best interest that an informed liaison exist between common and scientific names. The ongoing AFS series is the best hope of achieving and maintaining that connection.

Peanut Island Update

As reported in the July-August issue of the Shell-O-Gram, Peanut Island, a pristine 79-acre island just inside Palm Beach Inlet, is to undergo five years of renovations.

According to recent information, the construction

project began about two months ago and the island's shoreline on the north and east has been "cleaned up" by removal of the trees back a few hundred feet. Construction is also underway on a concrete pier on the island's northeast corner where a construction barge has been stationed. Access to the island has not been restricted and overnight camping is still permitted. The west and south sides of the island are as yet untouched.

Editor's Comments: Peanut Island is one of the most popular and productive shelling locales in South Florida. This far, 349 species of marine mollusks have been recorded from the island and adjacent waters since the keeping of records was begun in 1963.

New Exotic Species Found In U.S. Waters

Rapana venosa (Valenciennes, 1846), a native of the Sea of Japan (Japan and China), has been found in the lower Chesapeake Bay as well as in the James and York rivers of Virginia. The first specimens were dredged by the Virginia Institute of Marine Science (VIMS) sometime around the 1st of July during a routine monitoring of juvenile fish and crabs and are fully adult specimens. Egg capsules have been collected and continue to hatch in tanks at VIMS. The VIMS is in the process of collecting information from commercial fisherman.

It is believed that this species has been in the area for at least 7-10 years judging by the age of the live animals being recovered and reports from fishermen who didn't know what they were. The specimens collected by VIMS were brought to the Smithsonian for identification.

Rapana venosa, which under optimal conditions can attain a length of over eight inches, was introduced into the Black Sea in the 1940's and subsequently into the Aegean and Adriatic Seas. There are also unconfirmed reports of the species also being found in the United Kingdom. The species, a carnivore as are other muricids, feeds on oyster and clam beds.

Editor's comments: *Rapana venosa* is fished commercially as a food source in both the Far East by countries bordering the Black Sea. According to BAYSOY Food Products Industries & Trade Inc. of Turkey, that company's production of the species in 1997 alone totaled some 1,055,200 kilograms (2,326,293 pounds). Additionally, the species was featured on a postage stamp of the former U.S.S.R. and reportedly was that countries national shell.

Government To Fund Fight Against Alien Invasion

Many of the Nation's most notorious invasive alien species, such as the Zebra Mussel and Round Goby, arrived in U.S. waters as stowaways in the ballast tanks of ships entering U.S. ports from overseas. On September 30th, the U.S. Fish and Wildlife Service will award nearly $150,000 to a team of scientists at the University of Buffalo in New York to begin studying the treatment of ballast water and residue with peracetic acid to kill potentially invasive species surviving in ballast tanks.

This 2-year study, led by principal investigator Dr. Jim Jensen, will be conducted in Buffalo, New York, and Guelph, Ontario. The researchers will attempt to determine the effectiveness of peracetic acid in killing species in both fresh and saltwater ballast residue in tankers and cargo ships. The team will document the rate at which the acid breaks down into harmless chemicals, explore safety issues related to its use, and investigate impacts to water quality when the treated residue is discharged.

"Invasive species are now recognized as one of the most dire threats to the Nation's wildlife and ecology," said Service Director Jamie Rappaport Clark. "This research will provide important insight into options for preventing invasions when exchanging ballast water on the high seas is not possible."

Invasive alien species, introduced outside their natural range, thrive in the absence of natural predators or disease and quickly infest suitable habitats--devouring or crowding out native wildlife. It has been estimated that there are at least 4,000 non-native plants and 2,300 non-native animals now established in the United States. Some biologists believe that alien species invasions may be second only to habitat loss as a leading cause of extinction in the United States. Some species choke waterways used for navigation and recreation while others clog intake pipes or smother edible grasses used by grazing cattle; and all together, invasive alien species are estimated to cost the Nation upwards of $120 billion in prevention and damage control.

This new research will complement ongoing work funded by the Service to study alien species populations and their origins in vulnerable waters such as the Great Lakes, San Francisco Bay, and the Chesapeake Bay. This information is crucial as policy-makers and the shipping industry develop a strategy to cope with this threat. The Service has also identified two additional research projects for funding pending the availability of grant money in FY 1999. One effort would compare the effectiveness of various methods for exchanging ballast water on the high seas. The other would explore the feasibility of treating ballast in dockside facilities in San Francisco Bay.

*****Adapted from a U.S. Fish and Wildlife Service Press Release dated Sep. 24, 1998.

Hot Peppers - A New Mollusk Repellent?

Chili today - no mollusks tomorrow. Researchers say a new pest repellent that uses the heat of the world's hottest chili pepper, repels troublesome freshwater and saltwater mollusks including the Zebra Mussel, which has plagued the Great Lakes.

The repellent, developed at the New Mexico Institute of Mining and Technology's Research Foundation, exploits, the heat of the ripe red habañero pepper - 60 times hotter than its fiery cousin the jalapeño and 10 times hotter than cayenne.

Researchers mix the non-toxic chili additive into caulks, paints, glues and rubber-coating materials. Animals misguided enough to nibble get a red-hot surprise.

Tests found rats shunned pepper-coated cables, and a corral post treated with the repellent kept pests at bay for five years. Zebra Mussels, which have invaded water intake pipes and displaced native species in the Great Lakes and Mississippi and Ohio Rivers, were among the first targets of the repellent. Tests with the Zebra Mussels on various types of materials were deemed a success. There was no permanent attachment on test materials by either the larvae or juvenile mussels. Compared with the control materials, they observed substantially reduced and often-temporary attachments by mature adults on moderately "hot" materials and no attachment on the hottest materials.

Earlier research confirmed saltwater animals like scallops, sea anemones and barnacles also avoided pepper-treated material.

The U.S. Coast Guard was among those interested. Since boats are the most common method of transferring Zebra Mussels from one waterway to another, it is thought that pepper-treated hulls might discourage the European invader.

Mussel repellents currently include chlorine, ultraviolet light, sound vibrations, and electric currents.

Capsaicin, the substance that gives chili its heat, and its derivatives have been used on animals with some success for many years. Many hikers, for instance, carry pepper spray to protect themselves in bear country. Even though it's a natural substance, developers may have to test for toxicity, cancer risk, and reproductive harm before it's ready for market.

Tests by New Mexico scientists have found the pepper repellent works on many animals, birds and insects and is long-lasting because it forms a molecular bond to surfaces.

*****Adapted from the Albuquerque Journal, Oct. 2, 1998.

Selma (Sammy) Lawson Dead at 99

Honorary lifetime club member Selma (Sammy) Ray Lawson of Brooksville, Florida passed away at the age 99 on September 19th. Mrs. Lawson was born on June 18th, 1899 in Doe Run, Missouri and later moved to Florida, where she owned and operated Tramas Shell Shop in Pass-A-Grill, Florida from 1948-1969. She was listed in Who's Who of American Women (1965) and had been an honorary lifetime club member since 1980.

Mrs. Lawson, along with Dr. William Clench, served as one of the scientific division judges at the Jacksonville Shell Club's first shell show in 1962. She subsequently judged Jacksonville shows in 1963, 1967, 1972, 1977, 1979, 1981, 1982, 1984, and 1987. Although not in the best of health, Mrs. Lawson had attended a Jacksonville Shell Club Show as recently as 1997.

Mrs. Lawson will be cremated and her ashes scattered in the Gulf of Mexico, where she loved to shell.

Web Page News

The Jacksonville Shell Club's presence on the Internet has continued to expand over the past several months and now includes a total of 322 pages - a far cry from our humble one page beginning less than a year ago.

Material available includes general information about the club, contact points, information about the club's official shell, a map and directions to our meeting location, upcoming programs, shell show information, and the history of the official Florida State shell, and the other states which also have a state shell. In addition, a selection of past newsletter articles, dating to our first issue in 1960, and four of Harry Lee's Florida mollusk checklists are also posted and regularly updated for visitor edification. Virtually all of the individual pages are accompanied by color images.

Last but not least, the club pages also include images of all the valid Recent species of the genus *Busycon* and the families Ranellidae and Personidae - liberally interspersed with images of the living animals. Also posted is a selection of images of some of the more spectacular Western Atlantic and Philippine shells.

If you have the opportunity, visit your club pages at http://home.sprynet.com/sprynet/wfrank/jacksonv.htm. I don't think you will be disappointed!

Carrabelle Revisited - Continued

One of the two new scallop piles found by D.D. and Rob

Friday came, and Earl had left the Panhandle. I called our hotel to make sure they had weathered the storm and a friendly voice told me, "Sure we're all right - come on down," and so Friday after work Rob, our infant son Robbie and I set out for a three day tour. We expected to make it to the Rancho Inn by 11:30 PM and found ourselves grinning from ear to ear when we hit the Georgian Motel around 10:20 PM. We knew we were only minutes away from our destination but then the sign from hell hit us - a huge orange sign with big black letters that read**: Detour Road Closed, Take CR 67 to SR 65.**

Rob and I hesitated for a moment and almost ignored the detour. But being law-abiding citizens, we took the detour and at first were excited because we saw that we were on the road leading to the scallop dump. This gave us an excellent chance to scout out the dirt road we needed to take to the right, especially since I had left the written directions to the scallop dump back home. Now let me tell you, every dirt road to the right looked the same to me in the dark at 10:30 PM, but we made a mental note of one we were pretty sure was the correct one.

Ten minutes into our detour I was a little panicky. Rob pulled off to the side of the road and found the detour on the map and tried to reassure me that our turn to the left was just ahead around the bend.

Fifty minutes into our detour and passing the sign of "Tote's Hell Swamp" Rob was a little panicky. I was convinced we were in the "Twilight Zone." The 20-plus yellow road signs we passed were a bend to the right followed by a bend to the left. An hour and half later we finally made it to our left turn and a roadblock of two police officers. I quickly dubbed the roadblock "Checkpoint Charlie." Eager to get to our hotel, we decided to wait until morning to investigate the reason for the roadblock.

Early the next morning before we headed back to "Checkpoint Charlie," we explored the beautiful beaches of St. George Island. We found several docks bruised, battered and shredded to bits as well as piles of beach sand pushed to the side of the paved roads - all evidence of Hurricane Earl's wrath. Sealife of all sorts including starfish, sea slugs and sea cucumbers littered the tide line on the beach.

We did not find any live specimens, but filled our buckets with several dead species including *Raeta plicatella* (Channeled Duck Clam), *Crytopleura costata* (Angel Wing), *Neverita* sp. (Moon Snail) and a few nutmegs. Being satisfied we had collected all that we could, we set out for "Checkpoint Charlie."

As we approached the roadblock, Rob and I had rehearsed our plea to travel through the roadblock. "We

were from the Jacksonville Shell Club and were on an official club expedition to the Carrabelle Scallop Dump." To our amazement no plea was necessary -- we simply needed to patiently wait for a few more cars to come into line before the police escort would take us through. It was explained that Hurricane Earl had taken out numerous chunks of the road on the ocean side causing only one lane to be passable. As we got underway it was extremely obvious why the road had been closed down. Huge holes of pavement had been torn away. I would estimate a whole month's work lay ahead in order to repair the damage. A twenty-minute drive was all it took to take us back to Carrabelle which made the hour and a half detour into the "Twilight Zone" from the night before that much more nauseating.

In searching for the deserted dirt road leading to the scallop dump, we found many roads flooded and impassable. The area seemed to have been cleared away in several spots and we feared that perhaps our dump might have been leveled. We finally found one road above water that had been cleared with a newly-built house set back a ways. There to the left side of the clearing were two pyramidal piles of scallops. The mounds seemed to have been exposed to the sun for quite some time, and, as we began to dig through the pile, the shells crumbled away mixed with a lot of loose dirt.

We did not find the diversity of shells experienced on our '96 trip, but picked out several specimens of tulips, Apple Murex, sundials and jewel boxes. We decided not to look any further for the '96 dump due to the amount of water present on the back roads but headed back to the main road and enjoyed a delicious breakfast at Harry's Restaurant in Carrabelle.

All things considered, we did have a lovely weekend get-away spiced with a little adventure and managed to come away with new shells added to our collection.

Oh Yea - we also enjoyed a day in Panama City.

Calling All Crafters

By Judy Blocker

This year our club is participating in Watson Realty's "Festival of Trees" - a fund-raiser where **all** proceeds go to charity. Watson provides fifty 3 1/2 foot trees and 25 wreaths to be decorated and returned to them by November 28th for a silent auction on December 5th. The trees will be on display from December 1st through the 5th at their San Jose office near Julington Creek. There will be a reception that we will be welcome to attend.

I need shell ornaments - at least 40 - and I need input.

We will have a decorating day at my home on November 7th at 1:00 PM. Please attend and bring your ornaments and shell supplies. If you cannot attend, please call me and make arrangements to get your materials to me prior to that date.

Keep the ornaments in scale for a small 3 1/2 foot tree and limit them to pearlized with gold, silver or crystal accent. Call me at 246-4012 to make arrangements for delivery of your crafts or for further information.

Research Cracking Seashell Secrets

Imagine an abalone shell paint job for your car. Scientists from Sandia National Laboratories and the University of New Mexico have found a way to offer something very close to that by mimicking one of nature's most durable creations.

Delicately layered yet remarkably tough, the shells of abalone and other mollusks have long been the envy of human researchers trying to make hard materials for special jobs.

By adapting the same chemical process that allows dishwashing detergent to clean bacon grease out of your skillet, the research team has found a way to make synthetic seashells.

The project is still in the laboratory and is a long way from commercial use but researchers say it could eventually be used to provide a tough first coat of paint for a car or a thin light sensitive coating for windows that darkens in bright sunlight.

Seashells are one of nature's oldest solutions to the problem of building hard structures to protect living creatures. Since the middle of the Cambrian period some 500 million years ago, sea creatures have surrounded their soft bodies with hard shells. It's one of the major innovations in the early evolution of multicellular life, said a paleontologist at the New Mexico Museum of Natural History and Science.

Mollusks use unremarkable materials to make their remarkable shells -- primarily calcium carbonate, the same material in chalk. Abalone pulls off the trick by adding alternating layers of calcium carbonate

and molecules of a protein substance but mimicking the process in human labs has evaded 15 years of scientific effort.

The researchers solved the problem with a novel trick. Instead of trying to build up the layers one at a time they used a well-know property of substances called "surfactants" to do the job.

Surfactants are the same kind of substance found in dishwashing detergents. They work on your dishes by building molecular cages around the grease molecules. Once they're caged, they can easily be washed away.

The scientists used the same technique to build molecular cages around the materials that makes up their synthetic shell. The surfactants then chemically do the work of lining up the caged materials into neat, thin layers.

While it can make the same tightly bound layers created by a mollusk. It also offers some advantages. A wide variety of substances can be bound with the technique expanding its potential applications to fields like electronics and optics.

*****Based on a story in the Albuquerque Journal, July 16, 1998.

Field Trip News

November 7th - Fossil collecting trip to the Quality Aggregate Mining Pit in Sarasota, Florida. **Entrance to the pit is hard to come by. The trip will involve members of several Florida shell clubs and will be led by Roger Portell, Collections Manager, Division of Invertebrate Paleontology, University of Florida. Only a limited number of spaces are available. If you are interested, call Bill Lyerly at 771-5632 as soon as possible to obtain the necessary paperwork.**

December 4th through 6th - Marine collecting trip to Cedar Key, Florida. **Headquarters for the trip will be the Beachfront Motel in Cedar Key. Plans include a group dinner at one of the local restaurants on Friday night, shell the sandbar on Saturday morning, shop during the afternoon, and shell the sand bar again on Sunday morning before returning home. The low tide on Saturday is minus one foot at 08:48 AM and the tide on Sunday is a minus 0.7 feet at 09:32 AM.. Other Florida clubs are also planning an outing to Cedar Key this same weekend so you should call the motel as soon as possible at (352) 543-5113 and make your reservations.**

The Shell-O-Gram
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