SHELL-O-GRAM

Published By The Jacksonville Shell Club, Inc.

January-February, 1999 **Volume 40(1)**

January Meeting

The January 27th meeting of the Jacksonville Shell Club will be held at the Southeast Branch Library at 7:00 PM.

The month's educational slide program will be presented by Charlotte Lloyd and is entitled "Beautiful shells of northeast Florida.

The Shell-Of-The-Month will be given by Harry Lee on *Modiolus americanus* (Leach, 1815) - commonly known as the Tulip Mussel.

As is customary, refreshments will be served and guests are cordially invited to attend.

February Meeting

The February 24th meeting of the Jacksonville Shell Club will be held at the usual time and place.

The month's educational program will be a scripted slide presentation entitled "This is Sanibel."

The Shell-Of-The-Month will be presented by Bill Frank on *Epitonium angulatum* (Say, 1830) - commonly known as the Angulate Wentletrap - one of the most common inshore species found in Florida.

Refreshments will be served. Plan now to attend and bring a friend.

A Visit To The Fossil Pit

By Bill Lyerly

Pictured at the pit, from left to right, are Harry Lee, Roger Portell and Carol Rishel

One of the many advantages of being a member of a Shell Club is the opportunity to participate in field trips, and if there is anything that causes more excitement than a trip to the scallop dumps, it's a trip to a new fossil pit. This opportunity came on the weekend of November 6th and 7th when our club was invited by the Palm Beach County Club to join them and other clubs in a trip to Schroeter-Manatee-Schlitz Quarry in Sarasota, FL.

Four members of the Jacksonville Shell Club (Carol Rishel, Jack Gebert, Betsy and I) got an early start from Jacksonville on Friday morning in order to make a

Jacksonville Shell Club, Inc.
1865 Debutante Dr.
Jacksonville, FL 32246-8645
E-mail: Strombus@msn.com

HTTP://home.sprynet.com/sprynet/wfrank/jacksonv.htm

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.

Welcome New Members

Barbara & Carol Spivey
7400 Powers Ave. Apt. # 281
Jacksonville, FL 32217
Phone: 636-5480

Jules Leroy
35 Pioneer Drive
Dingo Beach
Queensland 4800 Australia

A Walk In The Park

At the request of Park Rangers, on the morning of Sunday, November 1st, three members of the Jacksonville Shell Club (your Editor, Charlotte Lloyd, and Harry Lee) presented a program on Northeast Florida shells and led a beach walk as a scheduled program for Little Talbot Island State Park.

Your Editor, selecting from his collection, input a good representation of the more showy species from Northeast Florida on display. Unfortunately, despite good on-site publicity and in the Florida Times-Union, only six guests availed themselves of the great opportunity. Despite this somewhat meager attendance, "the show went on" and everyone seemed to enjoy the display, the verbal presentation, and the beach walk - although it must be admitted that the park's beaches have in recent years been rather devoid of shells.

Editor's Comments: The Jacksonville Shell Club has had a long-term relationship with the park and its rangers. Club member, the late Bonnie Holiman, conducted a survey of the molluscan fauna of the park's beaches in the early 1990's, which today serves as the basis for the park's handout entitled "Shells of the Talbot Island State Parks."

President's Message

First of all I want to wish each and every one of you a Happy, Healthy and Prosperous New Year. We have great events planned for the coming year.

- There will be field trips to new and exotic places.
- The Jax. Shell Show returns to the Beach!!!
- Our greatly anticipated book will be published.
- Program Director Harry; will **"Wow"** us with programs in 1999.
- We'll once again have a family fishfry during the summer.

With all of this planned we need your continued support and attendance at the meetings. I look forward to seeing you'all there.

Annual Christmas Party

The evening of Saturday, December 19th, twenty-five members and guests of the Jacksonville Shell Club assembled at the beautiful oceanfront home of Carol and Richard Rishel in Atlantic Beach for the club's annual Christmas party. Although the weather was more reminiscent of summer than December, the group definitely had the holiday spirit and was more festive and louder than usual.

It was a wonderful party and the club owes a debt of gratitude to Carol and Richard for hosting this year's event.

Cumberland Island, Georgia Notes

Biologist and long-time Cumberland Island resident Carol Ruckdeschel writes from this pristine offshore

island that there were "Not too many shells here all summer. There have been (a) few lately but not the large numbers we see after storms, not yet."

"I am still not caught up from the summer rush of dead sea turtles. The total for the year for CI (Cumberland Island) stands at 97, and there could be more. What is NOT going on is the protection of our endangered species! We had our first Hawksbill sea turtle, in fact, the first specimen for the state."

A New Role For A Sea Slug

Even the most primitive creature is more complex than the most advanced computer system. That is why Microsoft Research computer scientists and University of Washington biologists are working together on a new project to study and analyze the behavior of basic organisms, such as sea slugs.

The computer scientists had been trying to figure out how to get a computer to decide what is important and what is irrelevant, but as it turns out, Mother Nature already does that very well. Scientists say that if computers could make the kind of common-sense decisions that even simple organisms make every day, their value as personal assistants would be immense because they could adapt to a user's behavior and make better assumptions on how best to help him

To study how organisms make these decisions, Microsoft and the University are collaborating on designing and implanting a tiny silicon chip in a sea slug. The resulting data will be analyzed using complex techniques that have been developed for artificial-intelligence systems.

Previously, University of Washington biologists have had to implant electrodes into single nerve cells, slowly collecting information from each. However, the electrodes impair the slug's movement, which in turn limits the amount of information that is collected. It is believed that with a microprocessor implant, they can let the sea slug swim freely and collect up to 64 megabits of data over the course of a week.

What the researchers are trying to determine is not so much how a creature decides what information is important, but how it discards what is useless. Researchers believe they can apply the methods used by slugs to prioritize information on computer systems.

Microsoft Research is already working on intelligent-agent software that will help users browse the Web. The software will read the links on a Web page and automatically prefetch selected pages into cache, which the user is likely to want to read next, thus saving the user download time. What they now need to figure out is how to get the computer to decide what is relevant and what is not."

So, what does all this have to do with running Windows 95, 98, or 2001? For one, such information could help the software giant build systems that can see, speak, and hear.

*Based upon articles from ABC News (Aug., 1998), Wired News (Sep., 1998) and Windows Magazine (Dec., 1998).

A Visit To The Fossil Pit - Continued

sidetrip to The Shell Store in St. Petersburg Beach (our first visit to their new location). This was Carol's first field trip, and she couldn't have picked a better one.

After checking in our motel, we took a "sight-seeing" trip to the area of the old APAC pit. It is now all under water and has been transformed into a public park. A walk on the edge of the lake disclosed fossils can still be found there, but only after a lot of searching. Following this brief visit to APAC, and remembering previous visits to Sarasota, we drove into town, anticipating a seafood dinner at Walt's Restaurant. This turned out to be the only disappointment in our entire trip as Walt's was closed for renovation. We settled for steak at Longhorn's.

Saturday morning, we met the rest of the group in the Taco Bell parking lot (Interstate-75, Exit 39) where we were joined by Harry Lee - making a total of five from our club and a total of 36 participants. Here we met Roger Portell of the Florida Museum of Natural History (our field trip leader), and his companions Susan Fain (Gainesville) and Jim Toomey (Sarasota area). Roger gave a brief explanation of what we could expect, advising that we would be in Phase 9, Pinecrest Unit, Pliocene, with fossils 3-5 million years old. The group then drove to the pit (about five miles distant), where Roger again explained some rules and advised that he and Jim would be operating pumps and hoses to wash the face of a wall (probably 100-feet long) to dislodge shells. Some of the group took turns operating the hoses, including Harry and Jack. In addition to this wall, there were many areas where excavation had taken place, making fossils readily available for those who did not man the pumps.

Carole Marshall has advised via E-mail that some of the better finds reported were *Epitonium*, a strange bubble shaped *Cypraea*, a small *Xenophora* with attachments, *Trigonostoma*, *Typhis*, *Murex* and Miters. Betsy and I haven't identified our small shells yet - maybe we'll find a treasure.

Our thanks to Carole Marshall and the Palm Beach County Shell Club for inviting us along on the trip.

Editors Note: Because of liability concerns, the

operators of the quarry will no longer allow shellers to visit effective January 1st, 1999. This action was prompted by the recent visit of an individual to the quarry without securing the prior permission.

Two Charged With Smuggling Shells And Coral

On November 12th, a federal grand jury in Tampa returned a six-count indictment charging a gift shop owner and importer in Tarpon Springs, and a Cebu City, Philippines exporter, in a scheme using false declarations, invoices and other shipping documents to smuggle protected corals and shells into the country.

Federal inspectors became suspicious when a shipment of 400 packages of the unusual goods arrived in Tampa during July 1997. The shipment sparked an investigation that federal prosecutors say uncovered an illegal arrangement to bring internationally protected coral and seashells from the Philippines to Florida to sell on the black market.

According to a Department of Justice press release, from 1991 through 1997, the two shipped the rare species into the country by mislabeling boxes and writing false invoices. The two are charged with conspiring to violate the Endangered Species Act, and if convicted, could face up to five years in prison and a $250,000 fine on each count.

*Adapted from an article in the Daytona Beach News-Journal, Nov.14, 1998.

New Publications Available

The Seashells of Sanibel and Captiva Islands by Ross W. Gundersen, Ph.D. This 32 page, 8 1/2 x 10 1/2-inch format booklet is available from the author - Dr. Ross W. Gundersen, Department of Biological Sciences, University of Wisconsin - Parkside, Box 2000, Kenosha, Wisconsin 53141. The cost is $14.00 plus $2.75 for postage and handling. The booklet is based on a survey of near shore shells of the two islands and is designed to provide shellers with a visual guide to 300 of the shells found on the beaches and shallow waters surrounding the islands. Both the larger macromollusks and smaller micromollusks are well represented. Each shell is labeled with its scientific name, author, common name (if assigned) and size.

Dr. José Leal, Director, Bailey-Matthews Shell Museum, Sanibel, Florida comments: "The book, which is the first work dedicated exclusively to shells of our famous barrier islands after the publication of Perry & Schwengel's classic Marine Shells of the Western Coast of Florida in the 1940s, includes a great many species that were never found on the islands' coasts before. Ross's artistry, sense of color balance, and complete control of the most advanced techniques in digital macro-photography are hard to beat - I could not find a single shell part out of focus in the entire book! His pictures of Sanibel shells of all sizes are striking in their resolution and detail. If you have unidentified shallow-water shells from the islands (or S. W. Florida) in your collection, the book may be the answer to your problems.

Indo-West Pacific Ranellidae, Bursidae and Personidae (Mollusca: Gastropoda) by A.G. Beu. A monograph of the New Caledonian fauna and revisions of related taxa. Resultats des Campagnes Musorstom, Vol. 19, Mem. Mus. Nat. d'Hist. nat., Tome 178, 220x 275 mm, 255 pp., 70 figures, 3 tables, 4 color plates, hardback. Text in English. The book can be ordered from Universal Book Services, Dr. W. Backhuys, P.O. Box 321, NL 2300 AH Leiden the Netherlands, E-mail: **backhuys@euronet.nl** ($65 plus postage) or from Mal de Mer Enterprises, P.O. Box 482, West Hempstead, NY 11552, E-mail: **maldemer@compuserve.com** ($79.95 plus postage).

Editor's Comments: For those of you interested in expanding your library, the Bailey-Matthews Shell Museum stocks an impressive selection of books relating to seashells, the seashore and shell crafts. A complete listing of their inventory can be obtained by writing to the museum at 3075 Sanibel-Captiva Rd., Sanibel, FL 33957 or by calling them toll-free at 1-888-679-6450. The museum accepts checks, money orders, and most major credit cards. Shell Museum members receive a 10% discount on all orders.

A Surprising Turn Of Events

Some 40 years ago (1958) in his monograph of North American *Busycon*,* Solomon Hollister compared the lectotype of *B. contrarium* (Conrad, 1840) (a Miocene fossil) to Recent shells to which this name had been applied and concluded that the two were different species. Therefore, he proposed *B. sinistrum* as the name for the Recent species - commonly referred to as the Lightning Whelk. Despite the thoroughness of Hollister's work, it has only been within the past few years that the name *Busycon sinistrum* has acquired some general acceptance and been applied to this species although the name *B. contrarium* will live on forever in

the older popular shell books. Simple enough - right - well not exactly.

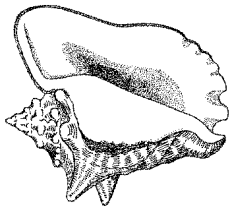
A recent morphological, allozyme, and RAPD survey of the North American sinistral *Busycon* was conducted by John Wise (Houston Museum of Natural Science), Robert Dillon (College of Charleston) and M. G. Harasewych (National Museum of Natural History, Smithsonian Institution).** Their data suggest that all living North American populations of sinistral *Busycon* (with the possible exception of *B. laeostomum* which was not studied) can be relegated to the oldest available nomen, *B. perversum* (Linné, 1758); in other words there is only one species, and its proper name is *B. perversum*.

The survey included seven populations of sinistral whelks - Atlantic (2), Gulf Florida (3), Texas (1) and Yucatan, Mexico (1), as well as a *B. carica* control population. It was noted that "Divergence was high among populations, as might be expected from animals with internal fertilization, an essentially sessile egg case, and direct development. There is some evidence of a barrier to dispersal between the two Atlantic populations and the five populations of the Gulf of Mexico. Divergence among Gulf populations seems attributable to isolation by distance. The elongate spines and tumid ridge(s) typically well-developed in Yucatan populations may be induced by intense, localized stone crab predation."

Editor's Comments: Your editor and assistant editor played a small part in this survey by providing live specimens of *B. sinistrum* and *B. carica* from Duval County (Mayport Naval Station) to the researchers. See Shell-O-Gram Volume 37:3, May-June, 1996 (*Busycon Taxonomic Travail*) for a previous discussion of the *Busycon* taxonomic muddle.

*A review of the genus *Busycon* and its allies, Pt. 1, Palaeontographica Americana, 4, no. 28, pp. 1-126.

**Abstracts, World Congress of Malacology, Washington, D.C., 1998.



Queen Conch Outplants - Restoring A Depleted Population

By Gregory Leute

Queen Conch (*Strombus gigas* Linnaeus, 1758) have a long history in the Florida Keys, and Floridians have a long-standing affection for the animals so closely associated with the allure of the tropics. Harvested into drastic depletion in state waters, the species was finally protected in 1986 by a complete harvest ban in Florida.

Now, Dr. Robert Glazer and his associates with the Florida Marine Research Institute (on Long Key) are at work to restore the conch's population in the keys.

While traditional management techniques such as bans and restrictions are frequently successful, they are greatly limited when a species' population is reduced beyond its capacity to recover independently. Hatcheries have proven successful in raising conchs, although releasing them into the wild is still laden with dozens of variables.

"Most hatcheries in the past, with all types of animals, have gone through the practice of producing animals, throwing them out there, and thinking they had saved the world," says Glazer. "In reality, what they found is that they were probably feeding fish with bigger mouths downstream. So we wanted to take an approach that was more ecologically-based, to determine the optimal strategy for releasing these animals."

Glazer and colleague Richard Jones, authors of Temporal Factors Influencing Survival of Hatchery-Raised Queen Conch Outplants, have tested their theories on how size, season and phases of the moon impact the survival of outplants, and have arrived at some surprising results.

"We expected when we started that we would have lower mortality in the winter when temperatures are coldest, the highest mortality on full moons when there's more light for predation, and that larger animals would survive much better," explains Glazer. "Well, the latter part is the only one that came to bear."

Fall actually proved to be the safest time for release, since the abundance of the conch's most significant predators was at its lowest.

"Turtles, specifically loggerheads, seem to go offshore; they've ended their nesting and they move into warmer waters. Lobster populations, too, are at their lowest at that time of the year, probably because of either harvesting or migration."

"We also had a better survival on the full moon, because there's less movement then by lobsters, probably because they're afraid of predators, too. We also noticed that there's less movement by conch on a new moon, so they're probably hunkered down."

Another interesting phase of the study dealt with training a conch prior to release to ensure its survival in the critical first week. "We found that if we introduced a predator into the conch's tank, we could induce it to bury like their wild counterparts. If we didn't do that, they tended to stay on the surface. We also found that they will grow a thicker shell (in the presence of a predator),

presumably making it harder for an animal to crush them."

Glazer says that he and his fellow researchers are on their way to developing a strategy for the species' recovery, but that a few more areas of research need to be considered. Among those issues are placement of outplants near predators and existing conch aggregations, the feasibility of transplanting sexually underdeveloped near-shore conch to areas offshore, and the contribution of migrating larvae from throughout the Caribbean to Florida stock.

"We see some aggregations in the Lower Keys increasing significantly," Glazer says with some optimism.

"Our goal, ultimately, is to be able to open the recreational fishery," he adds, "but it will take a large contribution in terms of proactive management."

*Originally published in Florida Scuba News, Volume 15, Number 12, Dec., 1998; republished with permission of the Managing Editor.

Cedar Key Field Trip

Selma and Andy search the exposed flats at Cedar Key for that special shell.

The weekend of December 5th, 12 members of the Jacksonville Shell Club (Bill & Betsy Lyerly, Rob & D.D. Jewell, John & Jane Fatu, Trudy Doerr, Mary Reynolds, Selma Thigpen, Andy Hutchison, and new members Barbara & Carol Spivey) participated in the clubs annual field trip to Cedar Key.

Field trip leader Bill Lyerly reported it was a great trip and the tides and the weather were perfect.

Number 302 - Shells Are Where You Find Them

As most Jacksonville Shell Club (JSC) Members are well aware, Assistant Editor and recognized shell identification guru, Harry Lee aggressively maintains four Florida mollusk checklists for the edification of others (Northeast Florida Terrestrial, Northeast Florida Aquatic, Peanut Island, and Cedar Key). These comprehensive checklists are maintained locally (on computers) and are posted on the Internet.

In the case of the Cedar Key Mollusk Checklist, records for that locale have been kept since 1974, and, until recently, had included 301 species. Some of those recorded species have come from what some might consider unconventional collecting techniques such as examination of the gut contents of Batfish and Starfish. However, the addition of species number 302 to the list brings into play yet another somewhat unusual collection strategy.

Rob and D.D. Jewell were two of the JSC members who took part in the Club's field trip to Cedar Key the weekend of December 5th and 6th. Upon returning to Jacksonville, Rob did what any visitor to Cedar Key must ultimately do - clean off the mud. During the course of this "fun event," Rob discovered a small mollusk embedded in the mud on his boots. He dutifully cleaned this 4-mm. specimen and presented it to Harry at the Christmas Party for identification. Under magnification, Harry identified the specimen as *Truncatella caribaeensis* Reeve, 1842 (Caribbean Truncatella) - a species never before recorded from Cedar Key during the 24 years that records have been kept.

Shells are truly where you find them!

Oysters Return To Hudson River

Oysters (*Crassostrea virginica*) have been found in the Hudson River for the first time in decades, although

they won't be showing up on menus anytime soon because of pollutants present in the river. The oysters - four as big at 3 inches across and six about the size of a dime - were pulled from the river the second week of December at the Palisade Boat Club in Yonkers.

Oysters have been found in New York Harbor, where the Hudson meets the Atlantic Ocean, but none north of the city. Environmentalists see the discovery as evidence that the Hudson, which once had vast oyster beds, is getting cleaner.

Among the reasons cited for the oysters' mid-century disappearance are pollution, changes in the river's salinity and the silting of beds from shipping and construction.

The boater who found the oysters said that he is used to finding things that do not belong in the water including outboard motors, auto parts and a 15-foot albino python.

*Adapted from an Associated Press article of December 22, 1998.

European Crab Poses Threat To West Coast Sea Life

Capable of wiping out natives, an alien intruder has been discovered as far south as California's Central Coast, and if it hasn't already invaded Southern California, it appears to be on its way. Europe's Green Crab (*Carcinus maenas*) - the most notorious invader of coasts around the world - can wreak ecological havoc, eating its way through marshes, harbors, and bays where rare native birds and fish feed.

A fairly recent arrival on the West Coast, the Green Crab until now had not been found farther south than Monterey Bay. Two weeks ago, however, biologist Ted Grosholz of the University of California (UC), Davis, found several of the crabs while collecting animal samples in Morro Bay - a discovery that surprised and dismayed scientists and environmental officials.

"It's on the move south," Grosholz said. "We hadn't expected to find any in Morro Bay. The possibility is that it is already farther south."

The Green Crab, originally a native of Europe's North Atlantic waters, is one of the Nature Conservancy's 12 least-wanted species in America, joining the Zebra Mussel and the Brown Tree Snake on the list of foreign animals and plants that are most feared.

The crab "poses a great many risks to Southern California," because it "can potentially lead to numerous cascading disruptions" of life in marine waters, said James Carlton, a marine scientist at Williams College in Massachusetts who is a leading expert on alien species.

The crab is such a new invader to the West Coast, Canton added, that no one at this point can estimate the damage it has caused. In a span of less than a decade, the Green Crab has migrated hundreds of miles up and down the West Coast, as its eggs are dispersed by ocean currents.

"We're witnessing now, on the West Coast of North America, the greatest marine range expansion for any species ever," said Armand Kuris, a biologist at UC Santa Barbara who is researching biological techniques for controlling the Green Crab and other alien species.

"Within a few years, we're seeing an expansion of Green Crab larvae coming out of the Golden Gate and sweeping north almost a thousand miles," he said. "As a biologist, I'm very impressed with that."

The Green Crab has such a huge appetite - it will eat virtually anything and lots of it - that it can decimate native creatures. Clams, oysters, mussels and Dungeness Crabs are some of its favorite fare. A single Green Crab can eat 40 small clams in a day and devour crabs its own size. Within three years of its arrival in Bodega Harbor, native clams and shore crabs showed "fivefold to tenfold declines," according to a study by Grosholz. "It is larger and more powerful than our shore crabs," Kuris said. "None of our species has any defenses against that type of shell cracking. Virtually all of our animals have no basic adaptation to resist being eaten like popcorn."

So far there has been no documented damage to fisheries along the West Coast. But if the crab becomes as abundant as it has on the East Coast, it could imperil the $20-million annual shellfish harvest in Washington's Puget Sound, or the oyster, clam and Dungeness Crab industries in Northern California and Oregon. In Southern California, the damage would be ecological, not economic, since the area has no significant shellfish industry.

The greatest danger involves rare coastal marshes at Bolsa Chica and Upper Newport Bay in Orange County, as well as estuaries in Ventura, Santa Barbara and San Diego counties. In those coastal areas, fish and endangered birds such as snowy plovers, terns and clapper rails are already facing great stress from urban development. Alien species, estimated at about 6,000 in the United States, are considered to be among the leading threats to diversity of wildlife and vegetation, contributing to extinctions and disrupting multimillion dollar fishing industries.

The fist-sized Green Crab may already have arrived in Southern California and escaped notice because few people are specifically looking for it. Most of the migration was expected northward, because of the predominant direction of currents in winter, when the crabs lay their eggs.

"I'm not surprised they're moving south, but we had expected a very slow movement south," said Kathy Hieb, a crustacean expert at the California Department of Fish and Game.

Although the discovery in Morro Bay is unwelcome news, Southern California may have some natural protection from an invasion because marine animals have difficulty rounding Point Conception, north of Santa Barbara.

"It's not time to cry out that the wolf is at the door yet," Kuris said. "But this is an eye-opener."

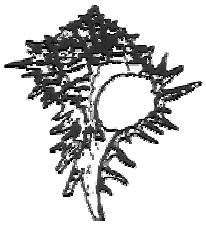
Common in the North Atlantic, the crab arrived on the East Coast of the United States in the 1800s, probably as a stowaway in a ship's ballast water. It is now found throughout the Eastern Seaboard, and has contributed to the decimation of New England's soft - shell clams and mussels. Fisheries have also been damaged in South Africa, Australia and Japan. Along the West Coast, the Green Crab was first noticed in 1989 in San Francisco Bay, and it quickly moved north to Tomales and Humboldt bays and Coos Bay in Oregon.

When an exotic species takes hold, it is virtually impossible to stop its spread. The crab is especially prolific - a female lays up to 200,000 eggs at a time.

"Once the genie is out of the bottle, there are a limited number of options," Grosholz said.

Perhaps the most effective, yet controversial, means of battling the crab would be to release a European parasite into California's marine waters. Kuris' team at UC Santa Barbara is studying the effect the foreign parasites - barnacles - might have on native crabs. Unlike the crustaceans it feeds upon, the Green Crab is not a good source of seafood. Although tasty, it is a spindly creature with little meat.

*Adapted from an article in Las Conchas - newsletter of the Pacific Shell Club; originally published in the Los Angeles Times, Nov. 5, 1998.



Jacksonville Shell Club 1998-99 Membership List

Abramson, Frank & Ruthie, 7146 Altama Rd., Jacksonville, FL 32245-9108	724-0748
Artrip, Zida B., P.O. Box 548, Shallotte, NC 28459	910/754-8487
Athearn, Herbert D., 5819 Benton Pike N.E., Cleveland, TN 37323-5301	423/476-4963
Barfield, Barbara, P.O. Box 651, Lynn Haven, FL 32444-0651	850/265-5849
Bechak, Anna, 9765 Southside Blvd. Apt. 3607, Jacksonville, FL 32256	620-0799
Bergeron, Carolyn, 3205 E. Olive Rd. Apt 21, Pensacola, FL 32514	Unlisted
Bielefeld, Shew-Fan, P.O. Box 675, Atlantic Beach, FL 32233	247-3932
Blocker, Judy & Chris, 2109 Beach Ave., Atlantic Beach, FL 32233-5932	246-4012
Blondin, Anita L., 1800 Park Ave. # 351, Orange Park, FL 32073	215-6246
Brown, Paul & Billie, 1328 14th Avenue N., Jacksonville Beach, FL 32250	241-3755
Cardin, Su & Charles, 105 Chickadee Ct., Daytona Beach, FL 32119-8713	756-6186
	Ccshell@ibm.net
Chamberlin, William F., 2632 NW 28th Place, Gainesville, FL 32605-2855	352/375-3190
Chauvin, Fred & Charlotte, 1800 Castile St., St. Augustine, FL 32084-5602	471-2502
Doerr, Trudy, 227 South Matanzas Blvd., St. Augustine, FL 32084	808-7223
Eanetta, Dorothy, 6109 Sabre Dr., Jacksonville, FL 32244-3145	772-6378
Fatu, John & Jane, 14149 Tomas Point Lane, Jacksonville, FL 32225-2052	221-4230
	Tongajohn@aol.com
Frank, William M., 1865 Debutante Dr., Jacksonville, FL 32246-8645	724-5326
	Wfrank@sprynet.com
Garry-Chadwick, Nancy, 303-3 Vista Lagoon Ct., Ponte Vedra Beach, FL 32082	285-1856

Gebert, Jack & Geynell, 225 Margaret St., Neptune Beach, FL 32266-4828	246-0186
Gettleman, Alan, 2225 Tanglewood Lane, Merritt Island, FL 32953-4287	407/454-3239
	Seashell@digital.net
Gilfillan, Nancy W., 13605 Crusader Way, Germantown, MD 20874-6212	301/515-9224
Haack, Linda R. & Family, 9250 Jaybird Circle W., Jacksonville, FL 32257-5269	731-4539
Hutchison, Andrew, 4 Ocean Trace Rd., St. Augustine, FL 32084-6778	471-8450
Jennings, Patricia, 3458 Heron Dr. N., Jacksonville Beach, FL 32250-3056	N/L
Jewell, Rob & Delores, 3165 Victoria Park Rd., Jacksonville, FL 32216-5611	443-6086
Keferl, Dr. Eugene P., 5280 East Glynn Ave., Brunswick, GA 31523-3414	912/265-0143
	Keferl@bc9000.bc.peachnet.edu
Lee, Dr. Harry G., 1801 Barrs St. Suite #500, Jacksonville, FL 32204-4787	389-4049
	Hglee2@jax.mindspring.com
Lenard, Lynn & Mark, 255 Hawthorne Rd., St. Augustine, FL 32086-6715	N/L
Leroy, Jules, 35 Pioneer Drive, Dingo Beach, Queensland 4800 Australia	N/L
Lloyd, Charlotte M., 1010 N. 24th St., Jacksonville Beach, FL 32250-2883	246-0874
	Clloyd6888@aol.com
Lyerly, Bill & Betsy, 6541 Solandra Dr., Jacksonville, FL 32210-7066	771-5632
	Blyerly@aol.com
Margiotta, Frank N., 68 Artist Lake Dr., Middle Island, NY 11953-2307	516/345-5406
Martin, Carol Ann Sacha, 133 Coastal Hollow Cir., St. Augustine, FL 32095-9069	824-1212
*Moller, Gertrude, 2248 University Blvd S., Jacksonville, FL 32216-2545	724-5959
Murphy, Leigh, 1536 Ingleside Ave., Jacksonville, FL 32205-8454	387-0619
Newsome, Claire, 3875 Copper Circle E., Jacksonville, FL 32207-6807	398-6383
Osbourne, Daryn L., 12419 Newell Green Pl., Jacksonville, FL 32246-7035	220-9623
Plata, Caryl, 3153 Hodges Blvd., Jacksonville, FL 32224-1283	821-0543
Poland, Phil, 2741 Enterprise Rd. East #30, Clearwater, FL 33759-1151	813/725-2637
	Epoland1@tampabay.rr.com
Porto, Kay, 3033 Club Villas AIP, Amelia Island, FL 32034-5055	N/L
Renner, Patricia, 2340 Snook Dr., Naples, FL 34102-1571	(941) 775-7406
#Reynolds, Mary, 226 Branscomb Rd., Green Cove Springs, FL 32043-5205	282-4931
	Mrbr@fcol.com
Richeson, Marion, 5118 Yacht Club Rd., Jacksonville, FL 32210-8324	389-5116
Rishel, Carol, 2115 Beach Ave., Atlantic Beach, FL 32233	247-7876
Robinett, Penny Lane, 1551 1st Street #101, Jacksonville Beach, FL 32250	247-8338
Romeu, Drs. Al & Esther, 3277 Hermitage Rd. E., Jacksonville, FL 32277-2646	744-4678
Shellhorn, John & Nancy, 1898 Blue Heron Lane, Jacksonville Beach, FL 32250-2561	249-6371
Shiflett, Clara, 2451 Belcher Dr., Montgomery, AL 36111-2147	334/263-4668
Spivey, Barbara & Carol, 7400 Powers Ave. Apt. # 281, Jacksonville, FL 32217	636-5480
St. John, Teresa M., 2605 Emily Court, Jacksonville, FL 32216-5101	725-1501
*Stacy, Alberta, 4405 Beverly Ave., Jacksonville, FL 32210-2017	389-6862
Stelljes, Delores, 3104 I'on Ave., Sullivans Island, SC 29482-8605	803/883-3297
Sunderland, Dr. Walter A., 7610 N.E. Earlwood Rd., Newberg, OR 97132-7109	503/625-6840
Therres, Louis & Pam, 1998 Candlewood Ct., Middleburg, FL 32068-3616	291-7334
Thigpen, Selma, 3869 Concord St., Jacksonville, FL 32205-8901	384-0697
#Thompson, Fred & Iris, 5573 Morse Ave., Jacksonville, FL 32244-3921	772-7415
Thorn, Craig & Audrey, 2 - 7th Street, St. Augustine Beach, FL 32084-3834	471-3892
Ward, Jeffrey & Patricia, P.O. Box 104, MaClenny, FL 32063	N/L
	B5sycop@aol.com
*Walker, Allan & Hazel, 1036 Mantes Ave., Jacksonville, FL 32205-4556	781-1553
Webb, Marion, 9960 Regency Sq. Blvd. N. Apt. 610, Jacksonville, FL 32225-6444	726-9979
White, Quint & Susan, 3040 Merlin Dr. N., Jacksonville, FL 32257-5830	731-9283
	Qwhite@ju.edu
Williams, Cathy, 3695 Sandburg Rd., Jacksonville, FL 32277-2686	744-3201

Life Member
* Honorary Life Member

SUNCOAST CONCHOLOGISTS HOSTS SHELLERS' JAMBOREE '99

An Underwater Fantasy

Plan to join fellow shell enthusiasts from other clubs at Suncoast Conchologists SHELLERS' JAMBOREE '99. **Mark your calendar for a memorable weekend when the Jamboree returns to the Minnreg Building in Largo, May 29-31, 1999, Memorial Day Weekend.**

FEATURING

- Shell-related PROGRAMS
- Our SHELL MARKET- Lots of fun buying or selling shells and shell-related items
- Our ever-popular SNAIL PARADE
- New in '99 - SEALIFE ART AND CRAFT SHOW
- An AUCTION of gorgeous specimen shells from around the world
- Single-Specimen SHELL SHOW featuring a SEALIFE CATEGORY
- SHELL ID of your mystery specimens
- SHELL MEASURING (New World Records or just for your own amazement!)
- A fabulous SILENT AUCTION with shells and many shell-related items
- A super RAFFLE, prizes, and surprises
- And a chance to talk shells, shells, shells!
- The all-inclusive package for a full weekend of fun and food is $75 for those registering prior to May 1st. Registration after May 1st is $80. This includes lunch and dinner Saturday, lunch Sunday, and the Banquet Sunday night.

Registration forms will be mailed March 3rd to those sending a stamped, self-addressed, legal-size envelope (77 cents postage) to: Roni Mucci, 795 County Road 1, #199, Palm Harbor, FL 34683 - Phone: (727) 787-4968.

The Shell-O-Gram
1865 Debutante Dr.
Jacksonville, FL 32246-8645