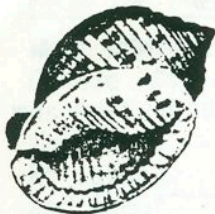


NORTH CAROLINA SHELL CLUB



Scotch Bonnet

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Wilmington NC 28409
1-919/799-3125

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3010 Fairway Road
Morehead City NC 28557
1-919/726-4265

===== WELCOME TO 1993 - SHELL CLUB'S 37th YEAR =====

Holden Beach

SUMMER MEETING

May 14th/15th, 1993

Meeting place: District 2 Community Bldg, Stansbury Rd, off Rt 130, near Holden Beach

Friday, 14 May 1993

7:30pm Registration; refreshments; socializing; bulletin board; viewing displays, &c

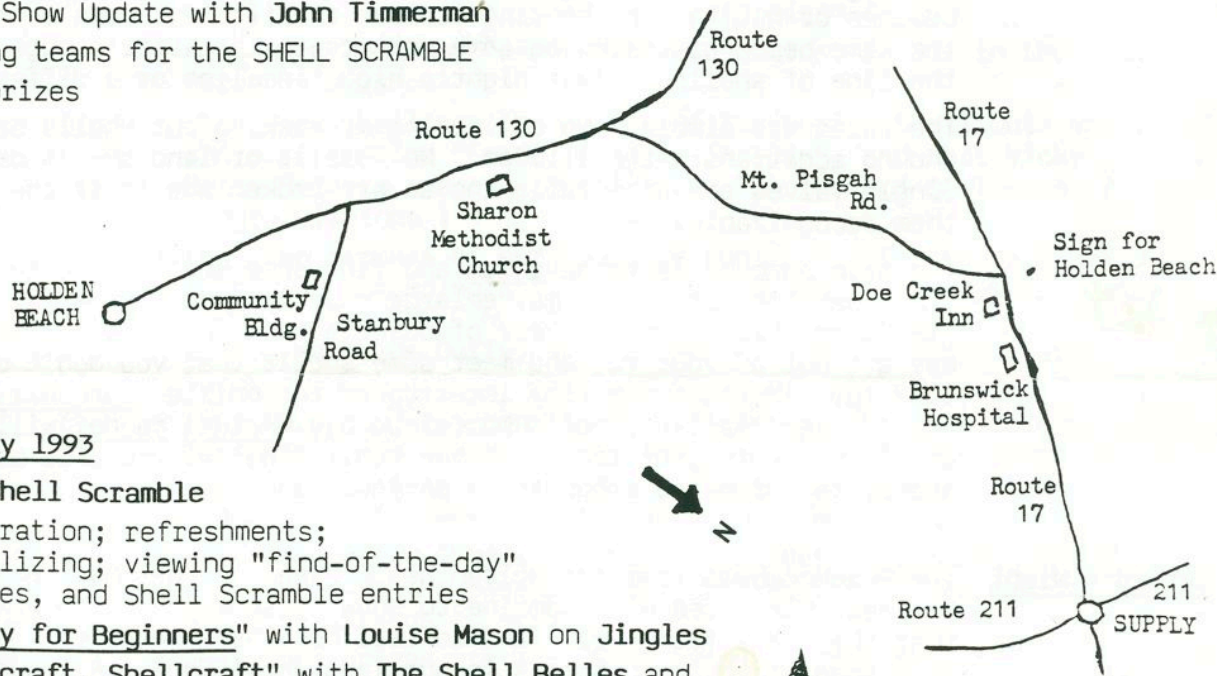
8:00pm "Shell Sculpture of Dwayne Schlitz"

"How to Identify a Shell, Part II" with Dean Weber

Shell Show Update with John Timmerman

Forming teams for the SHELL SCRAMBLE

Door prizes



Saturday, 15 May 1993

8:30-1130am Shell Scramble

7:30pm Registration; refreshments; socializing; viewing "find-of-the-day" entries, and Shell Scramble entries

8:00pm "Mostly for Beginners" with Louise Mason on Jingles

"Shellcraft, Shellcraft" with The Shell Belles and The Beachcombers

Business Meeting

Award for "Find-Of-The-Day"

Award for winning Shell Scramblers

Door prizes



Friday night

The main program is the concluding part of **How to Identify a Shell**, the series begun by **Ann Buddenhagen** one year ago. You can profit from this meeting without having attended last year. The course is rather intensive and challenging but fun. Ann is not available this time so the presider will be **Dean Weber**.

Saturday Field Activity

low tide -
about 10:13am

One point is awarded for each specie correctly identified. The team with the most points wins. Team members may get together on Saturday afternoon to complete the identification. Each team displays one shell of each specie Saturday night for judging with the name (common or Latin) on a scrap of paper below the shell.

The rules are simple. No collecting or staking out shells before 8:30am and no additions after 11:30am. No fossils or land shells permitted. Single valves are acceptable and so are broken shells if the judges rule them recognizable.

The main purpose is to have fun and find some shells, but there are other benefits too. You may enlarge your concept of what is on the beach and sharpen your powers of observation and identification. You may get out of your rut and meet some shells that you don't ordinarily look for. Perhaps the tiny interrupted turbonille (Turbonilla Interrupta) or the even smaller Candé's barrel bubble (Retusa candei) will be the shell that puts your team over the top. Finally, you will become better acquainted with the other folks on your team.

Saturday Night

The Beachcombers from the Holden Beach area and **The Shell Belles** from the Morehead City area will combine to show us some of the remarkable things that they make from shells and to tell how they are made. You may have seen some of their creations in our last Shell Show, Although this will not be a workshop, they will have some practical insider tips on cost, sources of materials, how to drill a hole in a shell, what glue to use, and so on.

Louise Mason opens the program with a brief treatment of Jingles.

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JOIN YOUR CLUBMATES for an interesting weekend at the beach in (hopefully) balmy mid-May

FROM THE PRESIDENT'S PAD

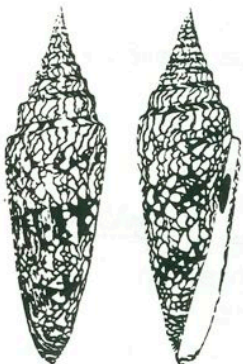
What a great Spring Meeting we had a Carolina Beach ! It all started Friday at the Castle Hayne fossil pit; see **John Timmerman's** report in this newsletter. The weather was Perfect ! We had many laughs watching some very old slides that **Carl Truckner** put together. We saw some of the very first Shell Shows right up to the recent one. We learned about helmet shells from **the Piech family**; about conchs and whelks from **John**; and about Louisiana shells from an interesting slide show. We learned how much we **didn't know** as we took **Dean's Spring Shell Quiz**.

Welcome to these new members of the NC Shell Club:

Joey & Brenda Bergman	New Bern
Eric Fritz	Hickory
Brenda and James Gardner	Troutman
Dr Ronald Hill	Morgantown WV
Toby McCoy and Lyn Johnson	Chapel Hill
Lillian Roberts	Raleigh



- And, DID YOU KNOW • that **Hugh Porter** from Morehead City (one of our Charter and Life Members) was profiled in "The State Down Home in North Carolina" magazine, October 1992; he is referred to as "the State's resident expert on beachcombing" and "Mr Seashell" ?
- that refreshments at each meeting are provided by folks who live in that area; volunteers are **always** welcome ?
 - that new member Retired Lt Col **Everett Long** is finding life in Emerald Isle **great** SHELLS !!!; he's also a real asset to the Club with his help, information and suggestions ?
 - that you have until the end of April to pay your dues, if you haven't already, and remain on the membership list ?
 - that **Alta VanLandingham** has become an avid wildflower expert and visits schools to share her enthusiasm ?
 - that **Mark Johnson**, formerly of Wilmington, is now in the Air Force in Oklahoma ?
 - that **Vicky Wall** was the winner of the Spring Shell Quiz and she also had the "Fossil Find-Of-The-Day", and that **Vicky** and **Betsy Roberts** shared a tie for the "Shell Find-Of-The-Day" ? **Congratulations !**
 - that **two** members of our Club are publicized in the March 1993 "American Conchologist" magazine: on page 16, **Karlynn Morgan's** "SHELL QUEST SHELLING SAFARIS" are advertised; and on the back cover, **Mathilde Duffy**, well-known shell artist, has a writeup about the things she creates and sells ?
 - that **Mary Louise Spain** broke her wrist as she fell leaving the last Shell Club meeting on Friday night; she'll be incapacitated for quite a few weeks and **Rusty** will have a chance to be "Cook and Bottlewasher"; **get well soon, Mary Louise !**
 - that **Marguerite Thomas** was given a wonderful birthday present: a cruise thru the Panama Canal, with visits to Mexican ports and some islands as well ?
 - that **door prizes** are always welcome at each meeting; please pick something up when you see it and bring along to the May meeting; you don't have to wrap it up "fancy" unless you want ?
 - that **James Wadsworth**, who was President of the NC Shell Club in 1961 and 1962, is now living at 125 Mt Vernon Drive in Wilmington and is still a member; he'd like to hear from his friends !
 - that the **President** or the **Editor** welcomes any and all of your "**DID YOU KNOW ?**" for publication, letting the other Club members share your good and interesting news ? Please ?



Fossil Field Trip to Martin Marietta Limestone Quarry, Castle Hayne,
North Carolina, March 19, 1993.

by John Timmerman

Seventeen club members attended the field trip even though we were forced to have the trip on a week by the company policy of no longer allowing weekend visitors. Despite this draw back I heard nothing but good things about the trip from those who attended it. The weather was a bit on the cool side and windy but sunny and dry. Once we headed into the pit where the wind was less and fossils to be found the cold was not as much a problem.

Collecting was as good as I have ever experienced at this quarry. More nautiloids, chambered nautili, were found on this trip than any one trip I have ever lead there. Several nice sections of Pleurotomari sp., slit shells were found. As is the case for this quarry sea life other than mollusks were the predominant fossils found. Of these, perhaps Echinoids, or the sea biscuits and their kin are the most abundant. Though the majority of the participants on this trip were new to this type of collecting many rare and striking species of Echinoid were found including a huge Linthia wilmingtonensis and a very rare Dixia sp. sea urchin in perfect condition. A few shark teeth were found. This quarry is not as rich for shark teeth as some other quarries in North Carolina.

Vicky Wall received fossil find of the day for a collection of spines (more a sea life find of the day) from the rare sea urchin species Phyllacanthus. From all verbal contacts I had with club members I judge the trip was a success and can see having another trip next year by popular demand.

I may have used some unfamiliar Latin binomials in this report. If one would like to research their Echinoid finds the following books are very good sources though may be hard to locate. I have photocopies of the plates from them that I will bring to the next club meeting to help people label their finds.

The Echinoids of the Middle Eocene Warley Hill Formation, Santee Limestone, and Castle Hayne Limestone of North and South Carolina.
by Porter M. Kier, Smithsonian Institution Press, 1980.

Cenozoic Echinoids of Eastern United States. by C. Wythe Cooke
Geological Survey Professional Paper 321, United States Government
Printing Office, Washington: 1959.



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Last Call for the Texasgulf Fossil Pit Trip - May 22nd 1993 - 8:30am sharp

The Beachcombers Shell Club has **12 slots open** (as of March 29th) for this trip.
Call Doreen Prugel at 1-919/579-8177 to reserve a place ! **First come, first served !**
You are on your own to get there.

Things to know ! No one under 18 is allowed. Bring sturdy sneakers or boots. Bring food and plenty to drink. Also take a hat, sunglasses, and something to put your treasures in. The trip will go rain or shine !

Depending on which direction you are coming from, they suggest either New Bern or Washington for a motel. Doreen says that they are staying at the Palace Motel in New Bern (1-919/638-1151), which is the least expensive AAA-listed motel.

Thanks to the Beachcombers for inviting us !

Thirty people and one leader found the weather superb and the shells multitudinous at Bulls Island, South Carolina, on March 6. There was a knobbed whelk every forty feet, a generous supply of channeled whelks, and a variety of other shells, common and uncommon.

ABUNDANT GASTROPODS

COMPLETE BIVALVES

OTHER SHELLS

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For several people wishing to share an apartment or a cottage, call Shell Club member **Betty Muirhead** at Sloane Realty for prices and information at Ocean Isle; work phone: 1-919/579-6216; home phone: 1-919/754-5216 (Betty furnished the above motel information). For Holden Beach locations, try Alan Holden Realty at 1-919/842-6061.

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MEXICAN BAN A note in the National Capital Shell Club newsletter reminds us that Mexico is **closed to shelling** since 1 June 1991. "The federal government prohibits all collecting of shells and other invertebrates, such as sand dollars, sea biscuits and urchins, starfish, etc. Also prohibited is all collecting or disturbing of birds, sea & shore plants, including wild flowers, weeds & grasses(!). No one may take a turtle or a totuave. Plus many other fishing and environmental rules. Other countries may do the same. If you have good Mexican shells, hang on to them, they may appreciate in value."

to add to your membership list

FRITZ, Eric
GARDNER, James & Brenda
HILL, Dr Ronald
JOHNSON, Lt Mark
JOHNSTON, Martha F
McCOY, Toby & Lyn Johnson

PO Box 5061, Hickory NC 28603, tel 1-704/495-7031
Route 2, Box 268, Troutman NC 28166
10 Flegal Street, Morgantown WV 26505, tel 1-304/599-6369
PSC Box 4313, Vance AFB, OK 73705-5000
6309 Litchford Road, Raleigh NC 27615, tel 1-919/876-2093
8116 North Hound Court, Chapel Hill NC 27514

CHANGES AND CORRECTIONS

to your membership list

BRUNNER, Jim and Linda
CHERRY, Wilbert and Hansi
COLLINS, Michael, Karen &
ELDER, Anne M
GARIBALDI Jr, Mr Linn D
KOCH, Charlie
MAGEE, Marion
MITCHENER, Sara

family Route 1, Box 137, Patrick Springs VA 24133
1-919/452-1082
4323 Philadelphia Church Road
3110C Pisgah Place
2117 Fisher Avenue, Indianapolis IN 46224

NOE, Norm and Linda
POE, David, Peggy & Rachel
ROBERTS, Betsy & Lillian
TOMLINSON, Bob & Marjorie
WAGNER (under LANGAN), Joa
WALTON, Olese & Eloise
WHITE, Margaret
UZZELL, Betty & Steve
UZZELL, Scott & Nell

188 Oakdale Drive, Morganton NC 28655, tel 1-704/433-2865
2111 Sparre Drive, Kinston NC 28501

7 Hickory Downs, 4101 Five Oaks Drive, Durham NC 27707
& D & S
13 East Bayshore Boulevard
1-919/872-0668



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SHELL CLUB PINS

A recent issue of the "American Conchologist" contained an article by Louis Brown of Louisville KY discussing and listing these pins; we felt to summarize it here for future reference. The first pin originated "down lia and the first USA pin was prepared in 1967 by the Sanibel-Captiva by the Louisville CS in 1973. At least 75 pins now exist, with the fol- wn to have pins. If you have one marked by * you have a scarce pin !


Florida Shell Club Pins

Astronaut Trail Shell Club of Brevard
Bonita Springs Shell Club
Broward Shell Club
Central Florida Shell Club
Fort Myers Shell Club (DEFUNCT)
Greater Miami Shell Club
Jacksonville Shell Club
Marco Island Shell Club
Naples Shell Club
Palm Beach County Shell Club
* Pinecrest Shell Club
Sanibel-Captiva Shell Club
Sarasota Shell Club
* South Florida Shell Club (DEFUNCT)
Southwest Florida Conchologist Society
Suncoast Conchologists
Suncoast Conchologists 1991 Shellers Jamboree
St. Petersburg Shell Club
Treasure Coast Shell Club



Other U.S. Shell Club Pins

Boston Malacological Club
Chicago Shell Club
Cincinnati Shell Club
Coventry Jr. High Shell Club
Conchologists of America — old pin — white
 — new pin — white w/red rim



Coastal Bend Shell Club

Crown Point Shell Collectors Study Group (DEFUNCT)
Georgia Shell Club — old pin — large and heavy
 — new pin
Greater St. Louis Shell Club
Houston Conchology Society
Indianapolis Shell Club
Long Island Shell Club
Louisiana Malacological Society
Louisville Conchological Society
Minnesota Society of Conchologists
National Capital Shell Club
* New Jersey Shell Club (DEFUNCT)
New York Shell Club
North Alabama Shell Club
* North Carolina Shell Club — old pin ?
 — new pin



North Texas Conchological Society
Northern California Malacozoological Club
Oregon Society of Conchologists
Pacific Shell Club (Los Angeles)
Pacific Northwest Shell Club
Paleontological Research Institution
Palmetto Shell Club
San Diego Shell Club
San Diego Shellers Club (DEFUNCT)
Shell Club of Mystic, Connecticut
South Carolina Shell Club (DEFUNCT)
Wilmington (Delaware) Shell Club

Foreign Shell Club Pins

- Australia
 - * Albany Shell Club (DEFUNCT)
 - * Bowen Shell Club (DEFUNCT)
 - Cairns Shell Club
 - * Cleveland Bay Shell Club (DEFUNCT)
 - Innisfail Shell Club
 - Keppel Bay Shell Club
 - * McKay Shell Club (DEFUNCT)
 - * Magnetic Island Shell Club (DEFUNCT)
 - Malacological Society of Australia
 - Malacological Society of South Australia
 - * Port Curtis Shell Discussion Group
 - * Port Dennison Shell Club
 - Port Phillips Bay Shell Club
 - Proserpine Shell Club
 - Townsville Shell Club
 - Western Australia Shell Club
 - Whitsunday Shell Club



Other Countries

Christchurch Shell Club of New Zealand
Conchology Section of Auckland Museum, New Zealand
* Belgian Society for Conchology (15th Anniversary pin)
* Bristol Naturalist Society, England
Association Francaise de Conchyliologie (AFC)
* Centro Portugues De Actividades Subaquaticas

MEMBER PROFILE: WALTER WENZEL

by Dean Weber

Recent president Walt is "our man in Pine Knoll Shores", who makes arrangements for meeting places in that area of the state, plans field trips there, rounds up local speakers, and serves the club more broadly on the nominating committee.

Walt was city-born in New Jersey but made a career out of living in small rural areas thereafter. After overseas service in the ski troops in World War II, Walt married Elsa in Colorado Springs and had military assignments in Muskogee, Oklahoma; Ozark, Alabama; and Little Rock, Arkansas. Then it was discharge and Geneva, New York (Hobart College) followed by Laramie, Wyoming (the University of Wyoming).

Walt is one of the very few professional biologists in our club and started with that title in the New Jersey Fish and Game Department before moving into Information/Education.

The Boy Scouts of America, wanting to give greater emphasis to ecology and conservation education and to place a half-million acres of scout properties under long-term conservation plans, asked Walt to take on the five-year task and moved the Wenzels to the Philmont Scout Ranch in Cimarron, New Mexico.

Then it was back to New Jersey at the Scout national office where, along with his regular assignments, he managed a 50-acre Conservation Education Center. He went on to become the director of the National Camping Service, later called the Camping and Conservation Service, and then director of the High Adventure and Conservation Services. When the Scout national office moved, Walt and Elsa went along to become residents of Grapevine, Texas.

Walt's business travels took him to the canoeing waters of northern Wisconsin, the 4½ million acres of Maine that border Canada, the Florida Sea Base on Lower Matecumbe Key, and the Boundary Waters Wilderness Area in Minnesota.

One choice assignment was a 40-mile open-boat trip to the Marquesas Keys off Key West. The objectives were to set up a new, exciting boat trip and adventure for young adults, to collect hundreds of samples of body fluid from horseshoe crabs, and to investigate sea turtle nesting. Fringe benefits included shell collecting, diving on coral heads to shoot grouper for supper, and photographing dozens of breeding nurse sharks.

Much of Walt's time is spent caring for a new goldfish pond and some 120 bonsai plants plus cuttings. He helped start the Carteret Bonsai Club six years ago. Chopsticks click at least once a week at his home, for Chinese cooking has been a specialty of his for the last ten years.

He is starting his third three-year term as a member of the Advisory Committee for the Aquarium at Pine Knoll Shores. About five times a year there, Walt and Elsa conduct day-long shell workshops, field trips, and auditorium programs on shells and shelling in North Carolina. He also presents shell programs to churches, service clubs, and other clubs.

He leads school children and teacher groups through the maritime forest in the Roosevelt Natural Area and has authored, with two other biologists, an illustrated "Instructors Guide to the Maritime Forest" for use by educators.

Clues to the Mystery of Shell Shapes

by Patricia Hay

Most visitors viewing a collection the size of the Brantley Watson Shell Collection are struck by the incredible variety of shell shape, color, and size. The beauty and diversity of shelled molluscs has always held a fascination for mankind, evidenced by historical uses of shells as implements and adornments, and by their representation in art and architecture through the ages.

Marine molluscs have also been appreciated from a gastronomical viewpoint – and not just by man. In their search for food, shell-destroying predators have played an important role in the evolution of shell shape we see today.

Marine molluscs are attacked and eaten by crustaceans, rays, bony fishes, some marine turtles, and predatory marine molluscs. The shell is the first line of defense for many molluscs.

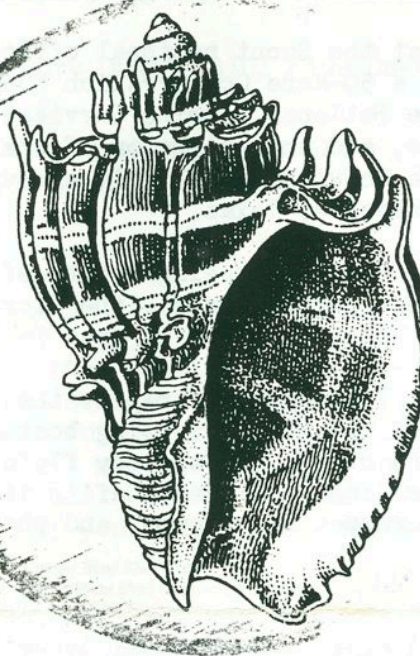
If you have been unlucky enough to have had your finger pinched by a crab or lobster you know that their claws are powerful weapons. Crabs, like our local stone crab, have bumps on their claws called molar teeth. These teeth focus crushing pressure on a small area of a shell and increase the crab's overall strength.

Pufferfishes and some sharks have strong jaws to crush their prey. Many fishes and rays have flattened pharyngeal (at the back

of the throat) teeth or bones that are well adapted for grinding or crushing mollusc shells.

Whelks are snails that use the leading edge of their body whorl to break bivalve shells with repeated heavy blows.

Tulip snails wedge the leading edge of the body whorl between the shells of bivalves. They feed by rasping away the meat with a file-like tongue called a radula.



Box crabs and spiny lobsters peel and chip away the body whorl of snails until the soft body is exposed. Box crabs are equipped with a special pair of teeth on the front surface of the claw which they use for shell peeling.

Moon snails, murex snails, and octopuses are able to drill right through the shells of their prey. The snails use their file-like

radula to drill; the octopus drills with its sharp beak.

Now that you know some of the "attackers" you may wonder what some of the "defenses" are. There are several architectural features of mollusc shells that act to deter some of these predators, including: a thick shell; spines; a tightly coiled shell; a small or narrow opening; or a low spire.

Fishes are best deterred by stout spines or nodes on the surface of shells. These increase the overall size of the shell which may make it "too big to eat." These spines can also increase the chance of damage to the predator's crushing surface (imagine trying to bite down on a nut shaped like a spiny jewel box).

Drillers have trouble attacking a mollusc with spines. Spines create a more complex surface to drill and make it more difficult for the predator to get a purchase on the shell. Drillers are also deterred by a thick shell.

Peelers have more trouble breaking into a snail with a thickened or tightly coiled shell. Thick ribbing or sculpture can damage a peeler's claw.

The next time you go shelling along our beaches watch for signs of the battle that goes on under the ocean between predator and prey. Shells with tiny drill holes, crushed spires, or chipped edges might tell of a lost contest.

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