



NORTH CAROLINA SHELL CLUB

<https://ncshellclub.com>

Jan-Mar 2025

NC Shell Club 1st Quarter Meeting Mar 21-22

Ocracoke Community Center

Ocracoke

President's Message:

Happy New Year to all! Hope you had a wonderful holiday season and are looking forward to an exciting 2025!

We started the year off with a Board of Director's meeting in January, discussing the function of the club, our website, and our future. We expect the website discussion to continue so stay tuned to it's evolution spearheaded by Maria Lloyd. Thank you so much for your hard work!

2025 is going to be another busy year. Maria, in her spare time, has been working on a Bull's Island, SC, trip on February 23rd.

The first meeting for 2025 is scheduled March 21-22nd in Ocracoke. With good fortune from the weather, we will have our annual field trip to Portsmouth Island on Saturday. Always a great outing at the end of winter, Portsmouth is a difficult to get to location and is a great place to find the elusive North Carolina state shell, the Scotch Bonnet. The meeting Friday night will include a silent auction and Dora Zimmerman will present a lecture on her trip to Australia. Saturday night, we'll have another live auction of the Everette Long collection. I'd like to thank Dora and John Timmerman for putting the catalog together; such a tremendous product!

***More about
Ocracoke on
Page 7***

The annual shell show is in May and the prospectus has been completed and uploaded to the website. We are collecting exhibit applications. If you are interested in showing your collection or your art, we would love for you to exhibit. If just visiting, it's a great place to learn and grow your collection. If you are

2025 Shell Show: available to volunteer, we will need help with the Shell show. Some committees have already put together groups to work on different parts of the show, but we will have a general call for people to spend some time greeting the public, answering questions, and helping to keep the order.

***May 2-4, Morehead
City. Setup on May 1st.***

***See Page 4 for more
information.***

A little further on the calendar, Conchologists of America's convention is in Corpus Christi, TX, July 7-12. It is a fun time for folks to come together and discuss the science and beauty of shells. Part of the BOD's discussion was the date of the next COA meeting hosted by our club in 2028.

Because of the weather over the past few years, we've flipped the September and November meetings. The September meeting and Annual Oral Auction will be September 19-20 in Carolina Beach. November's meeting will be November 7-8 in Cedar Point and will include the Shackleford Island trip.

If you have any questions or suggestions, please don't hesitate to contact me!

Dan

The 2026 Meeting Schedule has been finalized. See pages 25-26 for updates!



North Carolina Shell Club

Quarterly Meeting
Ocracoke Community Center

March 21, 2025

- 6:30pm Registration, Social, Silent Auction
- 7:00pm Greetings, Introductions, Announcements, Door Prizes
- 7:15pm Malacology Lecture: "Dora the Explorer Down Under- A Malacological Adventure In the Wilds of Western Australia" by NCSC Past President Dora Zimmerman
- 8:00pm Old Business and New Business
- 8:30pm Field Trip Announcements and Waiver Completion
- 8:40pm Silent Auction- Long Memorial Auction
- 9:00pm Auction Ends, Check out, Clean up



March 22, 2025

- 6:30pm Registration, Social, Find of the Day Set up, and Auction Viewing
- 7:00pm Greetings, Introductions
- 7:05pm **Live Auction-Everett Long Legacy Auction**
- 8:15pm Auction Break and Find of the Day Announcement
- 9:15pm Auction Ends, Check out, Clean up



Please print your catalog prior to the auction. No printed copies will be available.

Getting To Ocracoke—Recommend to reserve your ferry ride in advance

Ocracoke Island

The Outer Banks' southernmost barrier island.
Your Ocracoke adventure starts on the ferry!

OCRACOKE EXPRESS PASSENGER FERRY SERVICE
Hatteras - Ocracoke, runs May - September

HATTERAS-OCRACOKE FERRY
1 hour crossing, free & runs often

CEDAR ISLAND-OCRACOKE FERRY
2 ¼ hour crossing, toll ferry

SWAN QUARTER-OCRACOKE FERRY
2 ¼ hour crossing, toll ferry

Reservations are highly recommended for toll ferries.

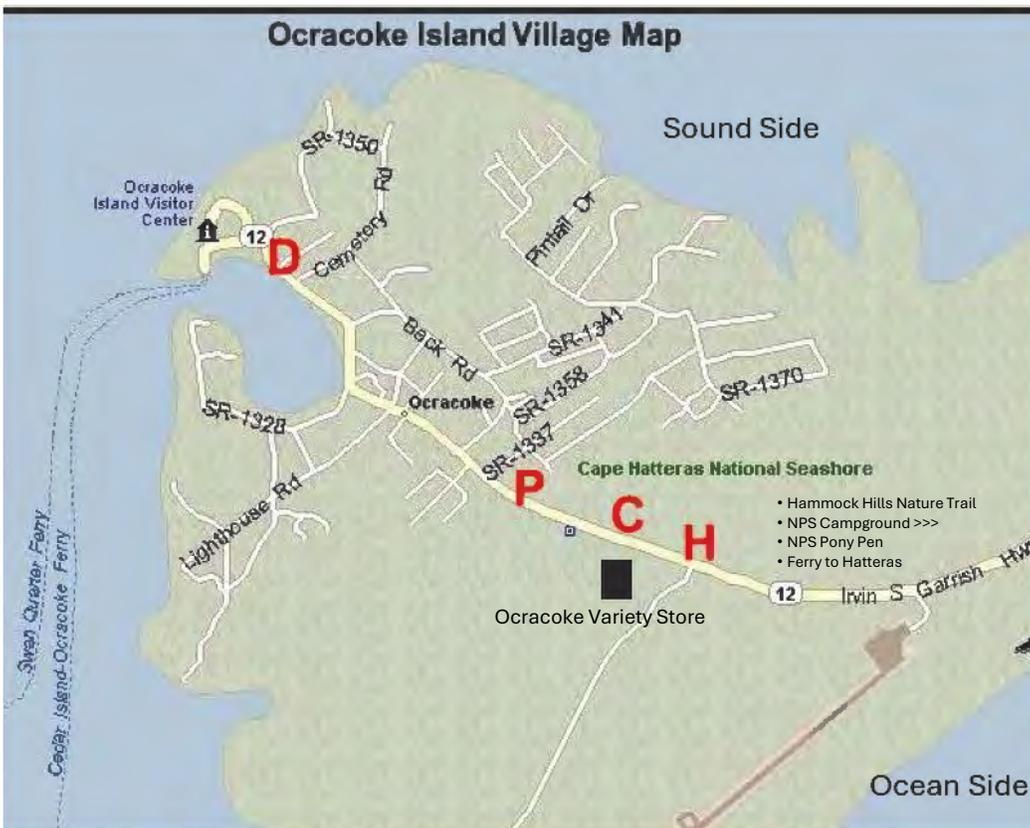
For reservations, fares and schedules, please call
1-800-BY-FERRY or visit www.ncdot.gov/divisions/ferry

The map shows the island's layout with various ferry docks and ramps. Key locations include Hatteras Inlet, Ocracoke Village, and Ocracoke Inlet. Ferry routes are marked with dashed lines connecting Hatteras, Cedar Island, and Swan Quarter to Ocracoke. Landmarks like the NPS Campground, NPS Pony Pen, and various beach accesses are also indicated.

Telephone: 1-800-293-3779 www.ncdot.gov

Pony Island Motel Reservations—Spots fill up quickly!

If you want to secure an early reservation, the number is 252-928-4411 (the only way to receive discount). We have been given a discount so be sure to tell them you are with the NC Shell Club. Prices are usually a little cheaper for the office-side rooms. There are no elevators.



- ◇ All venues and the recommended lodging (P) are along NC 12.
- ◇ Ocracoke Island is about 15 miles long (depending on where you get the answer) and only a few miles wide.
- ◇ More information about Ocracoke and Portsmouth Island: <https://www.nps.gov>
- ◇ Nice walking maps of Ocracoke can be downloaded at <https://www.visitocracokevillage.com>

- Friday and Saturday nights we have meetings at the Ocracoke Community Center (C)
- Saturday morning the shell trip leaves from the Park Service dock (D) near the ferry landing.
- Restaurants available for group events include Howard's Pub (H) and Pony Island Restaurant (P)



2025 North Carolina Shell Show

Returning to the Crystal Coast Civic Center (3505 Arendell Street) in Morehead City

SHOW HOURS:

Dealer's Set-up: Thursday, May 1, 9:00 a.m. - 5:00 p.m.

Exhibitor's Set-up: Thursday, May 1, 9:00 a.m. - 1:00 p.m.

Judging: Thursday, May 1, 1:00 p.m. - 5:00 p.m.

Open to the Public:

Friday, May 2, 9:00 a.m. - 5:00 p.m.

Saturday, May 3, 9:00 a.m. - 5:00 p.m.

Sunday, May 4, 9:00 a.m. - 3:00 p.m.

Banquet: Saturday, May 3, 6:30 p.m. (Speaker: Dr. Jose Leal)

Show Strike: Sunday, May 4, 3:00 p.m. - 7:00 p.m.

VOLUNTEERS NEEDED:

If you plan to be at the **Shell Show** and can lend a hand for a few hours with children's areas or in supporting roles throughout the show, please send an email to:

info@ncshellclub.com

The judges are **Jose Leal, Rich Goldberg, Kim Nealon** and **Nancy Timmerman**. Thank you so much for your support!



The Prospectus and applications are available from the NCSC website: NCShellClub.com under the Shell Show Tab.

ENTRY DEADLINES:

**ALL Applications are due by MARCH 15, 2024
NO LATE ENTRIES ACCEPTED**

SUGGESTED LODGING:

NCSC Recommends Hampton Inn which is nearby to the show. The price includes a complimentary hot continental breakfast.

Hampton Inn Morehead City
4035 Arendell St
Morehead City, NC 28557
866-238-4218 or 252-240-2300

John Timmerman
Co-Chair North Carolina Shell Show

If you think you may be attending the show, consider making your reservations as soon as possible. The month of May is busy with events. The Club's discount is \$139/night for 1 king or 2 double beds. The Group Code is: C-900 which is good from Apr 29-May 5.

The booking link is [https://www.hilton.com/en/book/reservation/deeplink?Cthocn=MORNCHX&groupCode=CHH900&arrivaldate=2025-04-29&departuredate=2025-05-05&cid=\)](https://www.hilton.com/en/book/reservation/deeplink?Cthocn=MORNCHX&groupCode=CHH900&arrivaldate=2025-04-29&departuredate=2025-05-05&cid=))

M.WWHILTONLINK.EN.DirectLink&fromId=HILTON LINKDIRECT

2025 North Carolina's 47th Annual Shell Show May 2-4, 2025

Returning to the Crystal Coast Civic Center (3505 Arendell Street) in Morehead City for the 4th Year

2024-2025 RAFFLE TICKETS ARE ON SALE!

The drawing for the winner will be at the 2025 Shell Show Banquet, Saturday, May 3rd. Tickets are five dollars (\$5) each for either item. All items will be available for viewing and tickets may be purchased during any Club meeting. There is no limit to the number of tickets that an individual may purchase and you do not have to be present to win.



20" long Sterling silver chain with hand-crafted pendant donated by Florida shell dealer, **Donald Dan**.

Donald purchases custom-made inlaid jewelry from Absolute Jewelry Mfg.-Ed Lohan Designs, which is owned and operated out of Arizona. Thank you on behalf of the North Carolina Shell Club!

PENDANT INLAYS:

Mother of Pearl, Australian Opal, Green enamel, Lime-green Jadeite stone, Center stone is Citrine; Florida Black Coral branch is included.



Nautilus-decorator bowl —19" round, clear acrylic stand and custom-made tote bag for bowl are included
Nautilus shell "Nautilus pompilius, Linnaeus, 1758, 186 mm

Anonomous Donation to NC Shell Club



Club Table Donations Wanted!

If you have old shells you are wanting to clear out of your collection or are looking to free up space for new shells, the North Carolina Shell Club would happily accept donations from your collection for use on our club table. The donated shells are sold during the North Carolina Shell Show to raise funds for our annual scholarship for research in marine biology.

Let's Welcome Our New Members:

ANN CASTNER (Indiv)
 CHARLOTTE NC 28215
 castnerann@gmail.com
 253-566-6621

SCOTT ROBICHAUD (Indiv)
 17 DRAPER DR
 WILMINGTON MA 01887
 scottjrobichaud@gmail.com
 978-857-0646

QUINN SWEENEY (Indiv)
 6432 SHINN CREEK LANE
 WILMINGTON NC 28409
 jqsweeney1@aol.com
 910-471-6818

CLIFTON DOWELL (Ind)
 2739 SPENCER ST
 DURHAM NC 27705
 cliftonhowell@gmail.com
 919-491-3589

ELISABETH MEAD (Indiv)
 115 DRIFTWOOD CT
 WRIGHTSVILLE BEACH NC 28480
 elisabethritzmead@gmail.com
 910-228-6049



Under the Sea Word Search



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 Permission to use for the purposes of NCSC Newsletter from Puzzles-to-print.com Jan 14, 2025. Any further use other than Individual entertainment is not authorized. If in doubt, contact Mimi Dill at mimiadill@aol.com.

Solutions on page 8

DIRECTIONS:
 Find and circle the vocabulary words in the grid. Look for them in all directions including backwards and diagonally.

- | | | | |
|-----------|----------|---------|--------|
| ALGAE | CORAL | MANATEE | SEAL |
| BARRACUDA | CRAB | OCEAN | SHAD |
| BASS | DIATOMS | OCTOPUS | SHARK |
| BIVALVE | EEL | ORCA | SHRIMP |
| CLAM | KELP | OTTER | SNAIL |
| COD | KRILL | RAY | SQUID |
| CONCH | MACKEREL | REEF | TUNA |

Is this Complete? See for Yourself!

March 2024

Local news



Work to raise the Double Keepers Quarters at the Ocracoke Light Station begins.

Renovation begins at Ocracoke Light Station

Construction work has begun for a \$3.6 million project to raise and repair the Double Keepers' Quarters (DKQ) and other structures at Cape Hatteras National Seashore's Ocracoke Light Station.

During the 12-month project, access to the boardwalk and lighthouse will mainly remain open, though there may be temporary closures for construction access.

Parking directly in front of the light station will be closed for the duration of the project.

Visitors should park in the gravel parking lot located approximately 200 feet northeast

of the light station on Lighthouse Road or one further south near the Life Saving Church.

A tree health assessment was conducted as part of the design phase of this project. All the larger live oak trees determined to be in fair or good health will be protected and remain on the landscape.

Of 28 trees assessed, eight were identified to be in poor condition due to an advanced state of decline. Four live oaks in the front of the DKQ were removed due to poor condition and to allow for appropriate installation of beams and other equipment to raise the structure.

Construction fencing was installed around the limit of construction to include the current parking area.

Large trucks with construction materials and equipment may cause short traffic delays in front of the light station.

The "double keepers' quarters" is so-named because two families could live there duplex-style.

The building will be refurbished back to the way it was in 1823 and will be a visitor attraction along with NPS housing. The lighthouse will be refurbished later as funding becomes available.

Dredges to work in Hatteras Inlet

By Connie Leinbach

Ocracoke received some good news recently when Catherine Peele, a planning developer with the NC Ferry Division, reported to the Ocracoke Waterways Commission that the Army Corps of Engineers (ACE) has approved Sloop Channel in the Hatteras Inlet for dredging.

This is the area in the “horse-shoe” where two ferries cannot pass and must make a series of S turns to traverse a shoaled spot. Those maneuvers typically add several minutes to the runs.

Ernie Doshier, chair of the commission, said that weather permitting, the ACE’s side caster dredge is set to head for that spot on Feb. 28 to make a

navigable cut through that area.

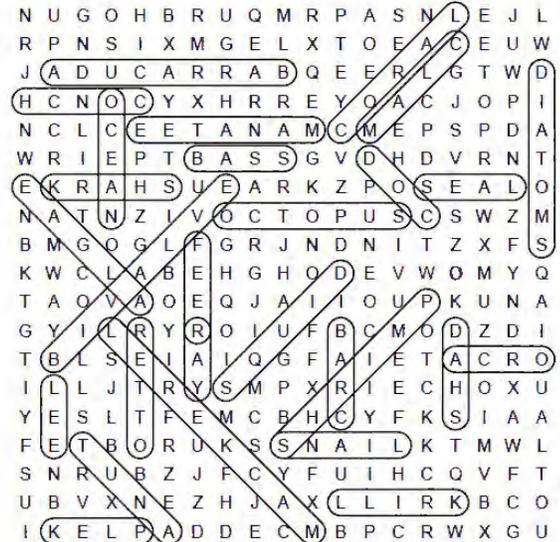
In the meantime, the Ferry Division has modified schedules on its routes between Feb. 6 and March 25 so that it can devote more resources to its spring and summer schedules. (See ferry schedule, page 3.)

However, the current schedule between Ocracoke and Hatteras will remain in place until March 5.

Because of the shoaling in the Barney Slough, a shallow area on the other side of the horseshoe at the tip of Hatteras Island, ferries to and from Hatteras have been using the Rollinson Channel to get to the deeper water in the Pamlico Sound. That is the same route the passenger ferry takes de-

See **DREDGES**, page 2

SOLUTION



DREDGES

Continued from page 1

parting Hatteras.

Also, pending, the state pipeline dredge is supposed to clear out a shoaled area pinching the basin at South Dock, Doshier said, but the state is awaiting the arrival of a part and neither he nor Peele knew when that would arrive.

The dredge also will work on a shoaled area near the bulkhead, Doshier said.

The goal is to dredge out 37,000 cubic yards of sand

from the basin area, which could be deposited on top of the sandbag area at the north end to repair the area from the recent overwash.

To help make room for more runs this spring and summer on the Hatteras ferry, Peele said the division will modify the passenger ferry schedule according to peak usage.

“We added a run on peak days of Tuesday through Friday and deleted some departures on Saturday to Monday,” she said. The passenger ferry typically runs from Memorial Day to Labor Day.

Spring and summer schedules for all ferries will be set and published after dredging in Hatteras Inlet is completed and they know how long the run time will be between islands, she said.

She said the cost to operate the passenger ferry for 116 days in 2023 (including personnel and fuel) was \$249,000 per day.

She also said that revenues from ferry tolls, for both the passenger and vehicle ferries, by law do not go back into operations but go into a capital fund for ferry replacement.

ocracoke observer

THE COMMUNITY NEWSPAPER OF OCRACOKE, NORTH CAROLINA, SINCE 1999

Spotted On Ocracoke: A Great Shell Collection

September 1, 2012



The Ocracoke Preservation Society museum, Ocracoke. Photo: C. Leinbach



The Ocracoke Preservation Society shell collection

Text and photos by Peter Vankevich

There are many reasons to visit the Ocracoke Preservation Society's David Williams House Museum at 49 Water Plant Rd. Passing the white picket fence, stepping onto the porch with the great old rocking chairs, you get a feel that you are walking back into time. Inside, there are furnished rooms with the look and feel of a bygone era. Carefully displayed on an old bed is the quilt made by the Ocracoke Quilters. Raffle tickets are on sale until the drawing that will take place at the Ocracoke Preservation Society's annual membership meeting in early November. Historic photographs adorn the walls. What you will also see—and that many may not be aware of—on your visit is a wonderful display of well more than 100 seashells. These identified specimens representing about 72 species are shells that could be spotted on Ocracoke. The collection was donated by Ruth and Bill Cochran, a friendly and outgoing couple who moved to Ocracoke in 1957. Bill ran a flight service on the island and together they also operated the Silver Lake Inn, a gift shop and shuttled fishermen and hunters along the beach in their Jeeps affectionately named the Good Hunter, The Flying Fisherman and the Beach Comber. Ruth took great pride in her beach driving skills. It was during these forays that they would often collect shells.

I love looking at this collection and much prefer it to looking at images on the Internet or in the field guides such as Nancy Rhyne's Carolina Shells and the popular Seashells of North Carolina by Hugh J. Porter, Lynn Houser and Scott Taylor. It's kind of like preferring a visit to the zoo rather than looking at a National Geographic magazine. One reason I like looking at the collection is you can see the actual size of the shell.

Be aware though that specimens of the same species can vary in size depending on the age that the mollusk died, and the collection reflects that. For example, in spite of dimensions provided in a book, I was nevertheless surprised to see how small the dreaded Atlantic oysterdrill is. Oyster drills are destructive – yet devilishly handsome–little snails that prey directly on other often much larger shellfish, most notably the Eastern Oyster.



Ocracoke has been noted by Coastal Living Magazine to be the second best place to find seashells along its beach. First place, of course, belongs rightfully so to Florida's Sanibel Island. I find it amusing that there are so many beach combers there that their shell gathering technique has taken on a name that is known as the Sanibel Stoop.

One reason for Ocracoke's high rating can be attributed to the not too far offshore Labrador Current that descends from the Arctic Ocean and the Gulf Stream that rises from the Caribbean. Both of these systems may carry shells from great distances that may wash up onto the beach, especially after big storms. There are also plenty local mollusk shells that may be found, such as moon snails, angel wings, calico scallops, the common sundial and the official state shell, the scotch bonnet. If you find a shell on the beach that you have trouble identifying, you could take it to the museum and see if there is a match.

This seashell collection is well suited to be at the Ocracoke Preservation Society as seashells have been and still are an important part of the island's culture. To illustrate this point, two large univalve shells you will see are the knobbed and lightning whelks. One easy way to distinguish them is that the knobbed whelk has an opening on the right side and the lightning whelk has its opening on the left side. Philip Howard remembers as a child that these two shells were kept at the family house and used to dip the water out of the old wooden cistern, one shell for the convenience of right handed persons and the other for us lefties.

The David Williams Museum is adjacent to the NPS parking lot near the Cedar Island/Swan Quarter ferry docks. It is open from Easter until Thanksgiving, Monday to Friday, 10 a.m. to 4 p.m., and Saturday, 11 a.m. to 4 p.m.

If you have suggestions for a future Spotted on Ocracoke column, feel free to contact me:

petevankevich@gmail.com.

Ocracoke observer

The road to Devil Shoals is paved with...

May 25, 2019 by P. Vankevich



Doug Wolfe holds two extinct vase shells. Photo: P. Vankevich

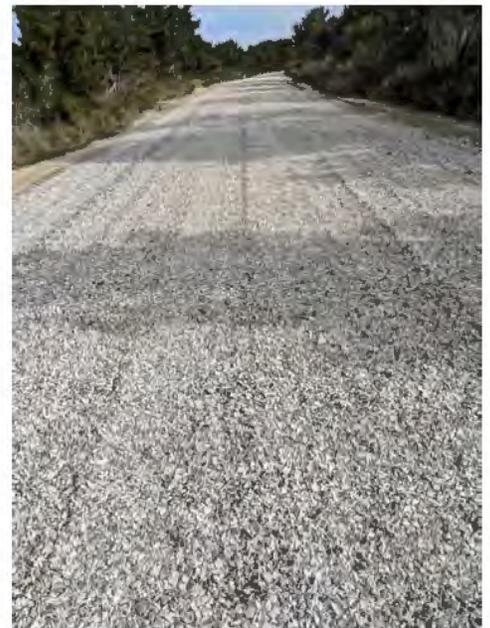
One access road to the Pamlico Sound on Ocracoke that doesn't require an ORV permit is Devil Shoals Road. This roughly half a mile road is located across from the campground and adjacent to the Hammock Hills nature trail.

Unless necessary, this is a road to walk rather than drive. From spring into fall, one can see and hear several interesting bird species: Gray Catbirds, House and Carolina Wrens, Prairie Warblers, Common Yellowthroats, Eastern Towhee, Brown Thrasher and, as you approach the marsh, Clapper Rails. It's also a hot spot to see small fiddler crabs.

This spring, the road was resurfaced to provide better access for non-4WD vehicles. The material consists of groundup seashells, but these aren't your typical shells. Some of these are prehistoric. Many along the sides of the road were fully or near fully intact. Although the intact shells are now mostly gone, there are still broken up remnants that can challenge identification.

Dr. Doug Wolfe, NC Shell Club historian, had an opportunity to walk the road during the club's annual visit to Ocracoke and Portsmouth islands in March.

Calling it "conchological sleuthing," he marveled at the many species non-native to North Carolina, including at least 30 fossil species and hypothesized there were two distinct and distant locations whence these shells originated. The road closest to the entrance was paved mainly with ocean quahog shells. In North America, this species ranges from Greenland to Cape Hatteras, and is harvested commercially off the coasts of New England, New Jersey and Delaware. Because ocean quahogs are one of the longest-lived (300 to 500 years) mollusks known to science, Wolfe said their catch must be carefully monitored and regulated to prevent serious population decline.



Devil Shoals Road, Cape Hatteras National Seashore on Ocracoke.

Mixed in with the ocean quahog shells were small numbers of other species that would have been incidental by-catch in the commercial fishery: Northern moon snail, northern whelk and New England Neptune. Some of these species still contained the rotting snail, indicating that the material had been obtained within the past month or two from a commercial facility that had shucked the ocean quahogs. Atlantic deep-sea scallops were present in small numbers, probably also as incidental by-catch.

Farther in from the highway, the sides of the road got more interesting as there were many Pliocene fossils, including extinct vase and left-handed cone shells that lived 1.8 to 6 million years ago. Among these fossils were several species ancestral to the modern Florida fighting conch, apple murex, olives and spiny jewel box that occur off Cape Lookout.

Another beautiful fossil gastropod he found on the road edge is the extinct species *Pleioptygma carolinensis*, originally (1840) described as a volute, later considered to be in the family of miters, and now assigned to the recently (1989) named subfamily *Pleioptygmatinae*, which is represented by a single living species found in the Caribbean off Honduras.

He speculated that the fossilized shells came from commercial marl pits near Sarasota, Fla., which is the only location in which he has seen them. Marl is a calcium carbonate or lime-rich mud which contains variable amounts of clays and silt.



Left hand is the New England neptune (*Neptunea decemcostata*), right hand is the common whelk, (*Buccinum undatum*).



Why, he wondered, would someone haul these all the way from Florida rather than from a North Carolina marl pit in Carteret County or near New Bern or Wilmington?

Mike Barber, spokesperson for the Cape Hatteras National Seashore, said since the shells came from a contracted commercial source, he was unable to provide exact origins, except to confirm Wolfe's thesis—the shells were indeed brought in from Delaware and Florida.

Those interested in the shells of Ocracoke should be aware that unusual shells found along a road, as in this case, do not necessarily show up from a major storm.

Pleioptygma carolinensis (Conrad, 1840) from Devils Shoals Road, March 30. Largest specimen is 3.25" long. Photo: Doug Wolfe

'Fossil Road' by Mimi Dill

Ever leave a shell meeting where folks are throwing all kinds of scientific names around and you feel like you are just not in their league? Boy, I do. One was the Hatteras Access Road that was mentioned in 2019's Observer. I looked at the books I was given to 'start' looking, but the names mentioned in the article were not in the book, so I was left with a mystery. I did a bit of sleuthing on my own simply because I can't keep up with the vast amount of experience that abounds within the NC Shell Club. Yes, you have to love the internet! And Doug, if I've gotten anything in error, please let me know...

To find a good reference to shells in a particular part of the world, you want a reference from that part of the world, right? In the article, the words, "Florida", "Sarasota", "fossil"...let's start with those 3.

Each US state published a geographical survey (so they would know mineral and water resources), and so there's one for Florida. You can download the PDF for free to get oriented to what, where, and when you are looking for. But there's also publications at the Department of Interior level, specifically, the US Geological Survey. If you've never been on their site, take just 30 minutes and go surfing. Maybe that's too much information since I'm showing my geek again...

The Alum Bluff covers a wider area than Sarasota; basically what's pictured below:



Julia Gardner published a series of Professional Papers on the Alum Bluff in the late 1920-1940's. Sorry, no, I didn't go through all 9. My interest was on #6, since that's where the *Pleioptygma carolinensis*, Conrad 1840 is mentioned.

DEPARTMENT OF THE INTERIOR
BUREAU OF GEOLOGY
U. S. GEOLOGICAL SURVEY
Geological Survey
Professional Paper 142—A

THE MOLLUSCAN FAUNA OF THE ALUM BLUFF GROUP OF FLORIDA

BY
JULIA GARDNER

Since there are websites for animals to check validity, reduce synonyms, and general facts for marine life (marinespecies.org), mollusks (molluscabase.org), wouldn't you know there's one for fossils?

<https://paleobiodb.org>



It's nice to know before hand that the three websites, are out of synch. Why? It comes down to resources and how quickly can you go through specific references, validate, and publish one species at a time. It may be common sense, but because these websites are the core baselines for their subject matter, then speculation, conjecture, or making assumptions, is frowned upon. The experts for each website have to use published references for their work. There's plenty more details in that process, but that's a different article (and not today).

When you do a quick search (in the upper right corner), for *Pleioptygma carolinensis*, this is what comes up. Basically, it says, "Yes, this is a valid species, and here's it's agreed upon name", and the author and date of when published. The distribution is interesting, because this particular shell/species is found in both Florida and North Carolina fossil records.

†*Mitra (Pleioptygma) carolinensis* Conrad 1840 (mitre shell)

Gastropoda - Neogastropoda - Mitridae

Alternative combination: *Voluta carolinensis*

Belongs to *Mitra (Pleioptygma)* according to W. P. Woodring 1964

Sister taxa: *Mitra (Pleioptygma) heilprini*, *Mitra (Pleioptygma) limonensis*, *Mitra (Pleioptygma) zaca*

Ecology: epifaunal carnivore

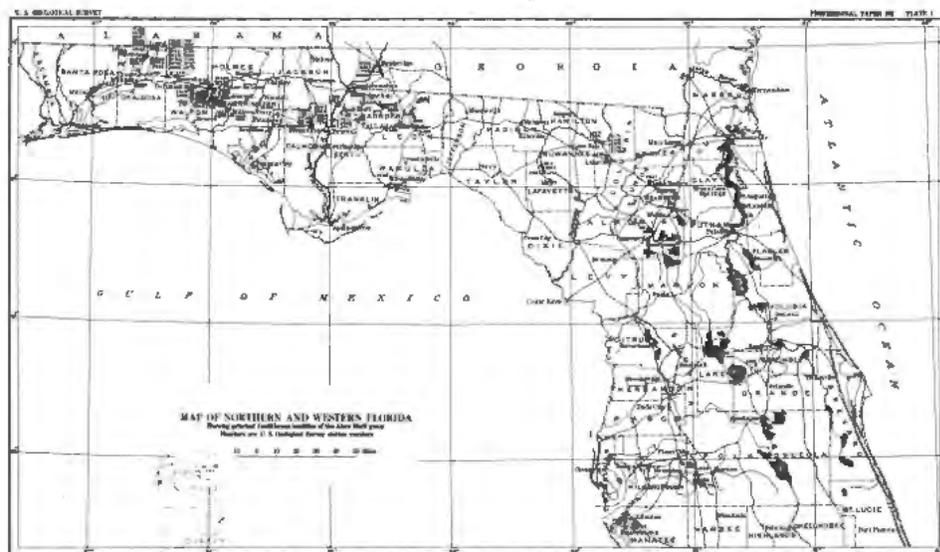
Distribution:

- Pliocene of United States (2: Florida, North Carolina collections)

Total: 2 collections each including a single occurrence

If you dive deeper into the links within the webpage(s), you eventually get to the reference that includes this species. Hence, how I got to Gardner, Julia, "The Molluscan Fauna of Alum Bluff Group of Florida", part VI. Professional Paper 1937. And found out there are nine in the series.

The map of locations that I got from Part I...



In Part 6, Figs 8 & 9, of Plate XLVIII (48 if I can still read Roman numerals)

FIGURES 8, 9. *Mitra (Pleioptygma) carolinensis* Conrad (p. 407).

8. Apertural view of paratype from the upper Miocene of the Natural Well, Duplin County, N. C. (Acad. Nat. Sci. Philadelphia No. 1618); height 73.0 millimeters; maximum diameter 24.0 millimeters.
 9. Apertural view of paratype from the upper Miocene of the Natural Well, Duplin County, N. C. (Acad. Nat. Sci. Philadelphia No. 1618); height 96.0± millimeters; maximum diameter 35.0 millimeters.



Page 407 refers to the conchology or the details of the shell. The top line includes where it was first published. Here, it says, 1863 versus 1840, but Conrad is still recognized as the first person to describe this species.

1863. *Pleioptygma*, Conrad, Acad. Nat. Sci. Philadelphia Proc. for 1862, p. 563.

Type (by monotypy): *Mitra carolinensis* Conrad. (Miocene of North Carolina.)

Subfusiform; aperture long; columella with very oblique plaits, numerous, alternated in size, or irregular, the largest being the second one from above.—Conrad, 1863.

The subgenus includes relatively large fusiform conchs with many-whorled tapering spires and small shelly paucispiral protoconchs. The regular spiral sculpture of the early whorls tends to become obsolete upon the later and upon the body to be restricted to the sutural band and the anterior canal. The aperture is narrow, the columella multiplicate, the throat smooth, and the terminal fasciolar notch broad and relatively deep.

The group has not been recognized outside of the east coast later Tertiary and Quaternary faunas.

What I love about Julia Gardner's Professional Papers, if you have a question that doesn't have an immediate answer, look in the rest of the paper and it's spelled out somewhere...you just have to be patient and seek.

So, for me, this is where I'll start my search of the shells I collected from the access road. I bounced between this series and Olsson, A.A. & A. Harbison, "Pliocene Mollusca of Southern Florida", 1990, and felt pretty confident of my decisions.

Update Oct 8, 2024. Some more insights from John Timmerman:

- *Vasum (Hystrivasum) horridum* Heilprin, 1887, is a marker fossil for the Caloosahatchee fauna.
- *Xancus regina* Heilprin, 1887, is another common fossil found in the Caloosahatchee formation.
- The material used in the shell road was washed before use. Marl directly from marl pits has a high percentage of clay, sand, and crushed shell. The road material is quite clean and largely shell. Larger gastropods are present, but always fragmented, likely destroyed by the mining, shipping, and spreading of the material.