Earliest Recorded Human Death from a Shark Encounter in North America

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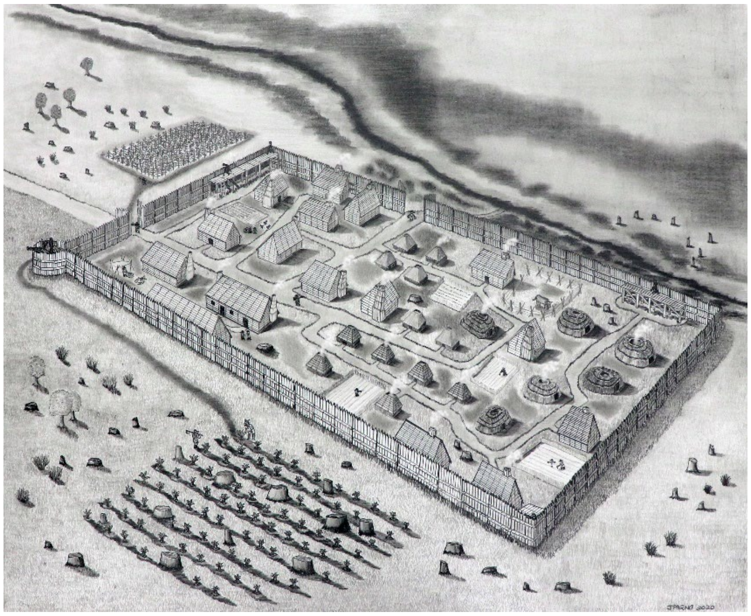


An early archaeological rendering of the 1634 St. Mary's Fort. (Historic St. Mary's City)

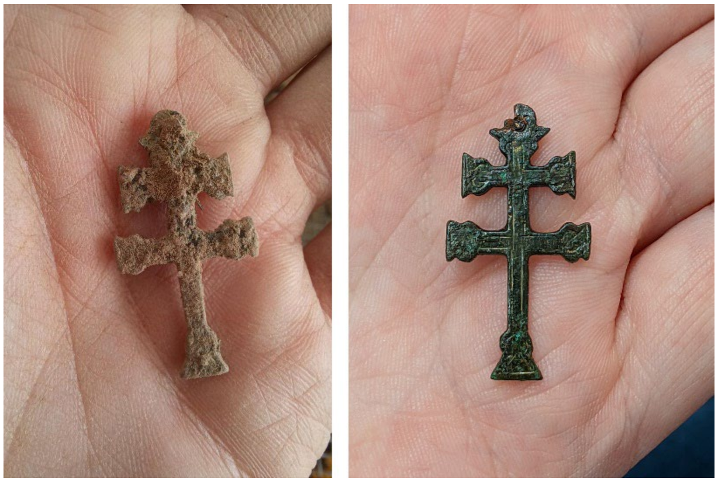
We set this scene in August of the year 1640, in Lord Baltimore's settlement near the mouth of Chesapeake Bay's great Potomac River estuary in the colony of Maryland. We believe this was about the 15th of the month, close to the celebrated Catholic Feast of the Assumption. The community they were building faced a tributary they had named St. George's River, though it later became the St. Mary's River, named after their settlement, in the 18th century.

We encounter an English man, likely a current or formerly indentured servant and probably a laborer. Like most settlers since 1634, he had likely lived in the colony's first protective fort, a roughly rectangular enclosure palisaded by a wall of upright logs and built near the river. This fort sheltered perhaps a couple hundred people while their settlement, St. Mary's City, was conceived and built. The fort was set back from the water, likely with cleared agricultural land, providing a clear military "field of fire" to defend against potential conflicts with Native peoples or with Virginian colonists, then at Jamestown.

Also residing in the fort, accounts say, both in 1639 and still at St. Mary's in 1642, was Jesuit Father Thomas Copley. It's possible but uncertain that Copley and this man really knew each other. The priest did offer him ministerial instruction to become a Catholic, and correspondence suggests that around an earlier "vigil" (possibly a Feast of the Assumption, an annual event when Jesuit novices take their final vows) it was hoped this man might join the church. Dr. Henry Miller, Maryland Heritage Scholar at Historic St Mary's City says the event could have been Easter, on April 8, 1640.

English dates were then reckoned by the Old (Julian) Calendar's New Year, celebrated on March 25. This was when the year for them changed from 1639 to 1640. We're thus uncertain when Copley said this man: *"In the time when he mediated better thoughts he had obtained [Rosary] prayer beads for himself"* as part of his learning about the faith, an essential element in this story.

Copley was one of four priests and a fifth serving as Coadjutor (Bishop) in Maryland. Together they guided the settlement's religious life. In 1642, another priest wrote that Copley was "Superior" of the mission and that he "*remained for the most part at St. Mary's, the chief town of the colony, in order that he might take care of the English, who live there in greater numbers, and also of the Indians not living far distant.*" Meanwhile, his fellow priests made efforts to seek adherents among more distant Native communities.


Jessica Edwards, archaeology site director at the location of the fort, says this 1600s Caravaca cross was found there. The cross is shown here before and after conservation. Scattered elsewhere were loose beads and a copper chain, possibly from one of many rosaries. (Historic St. Mary's City)

All the priests, as dictated by their Order had, since their establishment in 1540, embraced a deep commitment to Holy Mary, mother of Jesus, a devotion — a Marian philosophy — that shapes this story significantly and was influential in naming St. Mary's City, the St. Mary's River, Lord Baltimore's colony of Maryland, and later, by extension, the state of Maryland.

The Feast of the Assumption was and remains a major celebration in the Jesuit Ecclesiastical year and has incorporated a mid-August procession for a blessing of the waters, celebrating Holy Mary's role as patron of the seas. Today, it often accompanies a "blessing of the fleet" on Chesapeake Bay.

The Jesuits at St. Mary's between 1634 through 1681 wrote annual letters, though some are absent, which detailed their missionary efforts.[i] These letters, including Copley's of 1640, were directed to their Order in Rome and sent to the English College at *Li'ege*, in today's Belgium. Dr. Miller indicates that since the Old Calendar New Year was March 25, 1641, Copley's letter was probably written for transmittal in April or May of 1641, and in time to be sent out with the departing tobacco fleet — a vital window in a totally tobacco economy!

This story of a shark encounter is preserved because Copley, in one of his letters, wrote about this man and his behavior, which flew in the face of his Jesuit beliefs.

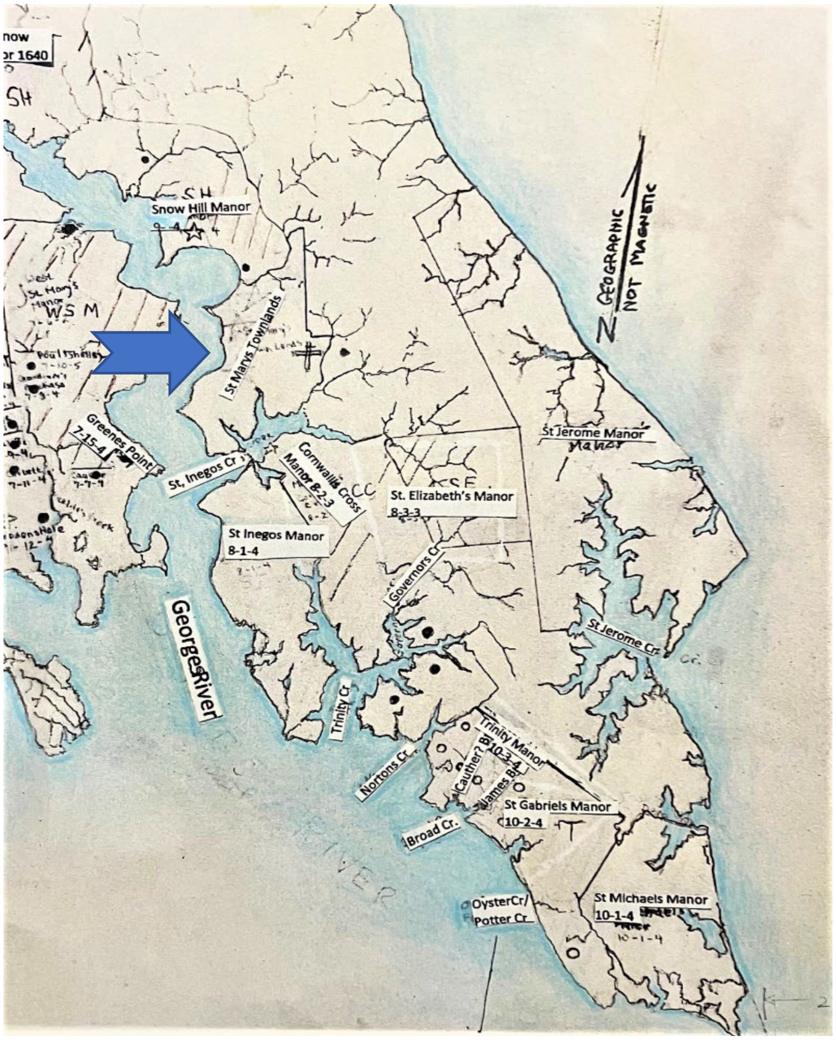
We will never know the man's name because of priestly confidentiality and wider religious societal tensions. In England, Catholicism had been repressed since the time of Henry VIII and recording any proper names might someday put one at hazard from Protestant English zealots. Even Copley represented himself under a pseudonym: Father Phillip Fisher. This persecution was indeed one reason that Lord Baltimore's expedition here was mounted.

Just in its 6th year, the St. Mary's settlement was developing on land peaceably traded for with Native people whose forbears had lived there for thousands of years.

Relations with the Native people were stable and the priests' philosophy went beyond bringing them into the fold. The year of 1640 was exceptional because, as Copley wrote in 1641, *"famine prevailed* *among the Indians on account of the excessive drought of the past summer”* and “*though corn was sold at a great cost … we considered it necessary to relieve their want of bread by assisting them.*”

This knowledge is important because it describes the environment that year as very hot and dry, with harsher work conditions and strained agriculture. The lack of rain lowered river flows and raised salinity in both the Potomac and St. Mary’s rivers, making saltiness there two-thirds that of coastal ocean water and encouraging visitation from many different fish species.

St. Mary’s sought to expand tobacco farming widely but moved cautiously in recording and granting land parcels at a distance from the core settlement because people needed the support of their neighbors. Historian Lois Green Carr estimated it was 1637 when people began to spread farther afield, but this expansion was still restricted around the St. George’s (St. Mary’s) River and lands along the Potomac.


now
or 1640
SH
Snow Hill Manor
SH
West St Mary's Manor
WSM
Greenes Point
7-15-4
St Marys Townlands
St, Inegos Cr
Cornwallis Cross Manor 8-2-3
CC
St. Elizabeth's Manor
8-3-3
SE
St Inegos Manor
8-1-4
GEOGRAPHIC NOT MAGNETIC
N
St Jerome Manor
Governors Cr
St Jerome Cr
George River
Trinity Cr
Trinity Manor
10-3-4
Nortons Cr
Cauther? Br
James Br
St Gabriels Manor
10-2-4
Broad Cr.
RIVER
OysterCr/
Potter Cr
St Michaels Manor
10-1-4

A partial re-draft of Carr’s 1950s map of nearby plantations to 1640. Arrow shows land of Thomas Greene, second governor, where we suggest the fatal shark encounter might have occurred.

The Jesuits would hold land too — a lot of it. By 1638, they’d begun settling St. Inigoes Manor, a plantation farther southeast down the shore and across a creek they’d named St. Inigoes.

We don’t know with whom our man was indentured but, given the independence he later showed, Fernicola feels it was unlikely that he would’ve been selected to serve under the Jesuits.

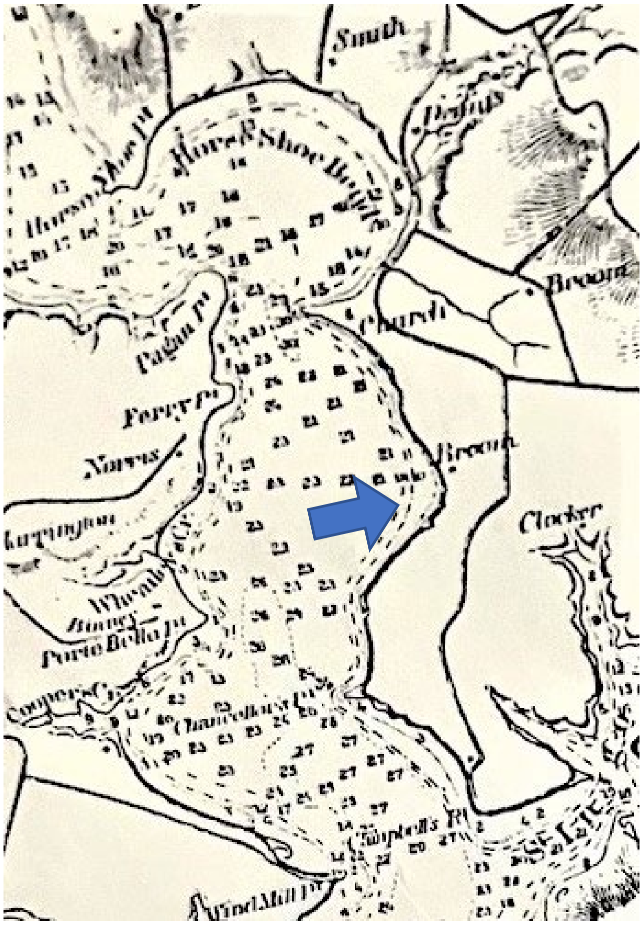
Many agreements of indenture were of five but sometimes just three years duration. So, by 1640, this fellow could have become a freedman and thus entitled to a 50-acre plot of land by virtue of his service. Such a grant could light his way to a real future.

To settle on this land though, such men had to earn enough to pay for the surveying and recording of their right. This was a cumbersome formal process inscribed by hand with a feather pen in bound folios, but many of these records have endured nearly four centuries.

Tobacco was the source of wealth and shaped all economic life in the young colony. A man's labor could earn tobacco with which obligations, like surveying one's land, could be met. To start out, some men formed "mateships," alliances with others to tackle the huge labor of starting a new farm or plantation. Our man may have had such "companions," as Copley wrote.

Still this man, alone in a strange uncertain world, seemed at first to welcome Copley's ministerial instruction with its assurances of salvation. Miller points out that nearly one in three immigrants to this colony died within their first year. This came from what English called "the seasoning," a suite of illnesses including "bloody fluxes" (a form of dysentery), other infections and physical injury. While these fates were sometimes considered divine retribution for previous sins, the Jesuits' training in medicine of the time — cleanliness, herbal remedies, nutrition and just the positive placebo effect of hope and care — were important to have.

This medical support aided Native people. In his 1640 letter, Copley recounts the curing of a desperately ill tribal *tayak,* or chieftain. Copley writes that his recovery seemed miraculous and the *tayak*, his wife and children became Catholics. The couple were married in a high-profile ceremony and given Christian names. It was expected the whole village might convert.



The earliest Coast Survey map, created in 1824, for what is now the St. Mary's River shows water depths. The arrow marks the site where we believe the fatal shark encounter occurred.

Copley wrote of this man who *"had for some time made use of means which seemed to lead towards conversion, yet on a certain day [he] determined to cast aside all such thoughts and go back to the customary paths of his earlier life …. He was accustomed to smoke [the Rosary beads, which in remote locations were sometimes made of nuts or seeds] in his pipe with tobacco, after grinding them to powder, often boasting that he was eating up his "Ave Marias"; for so he called the beads."*

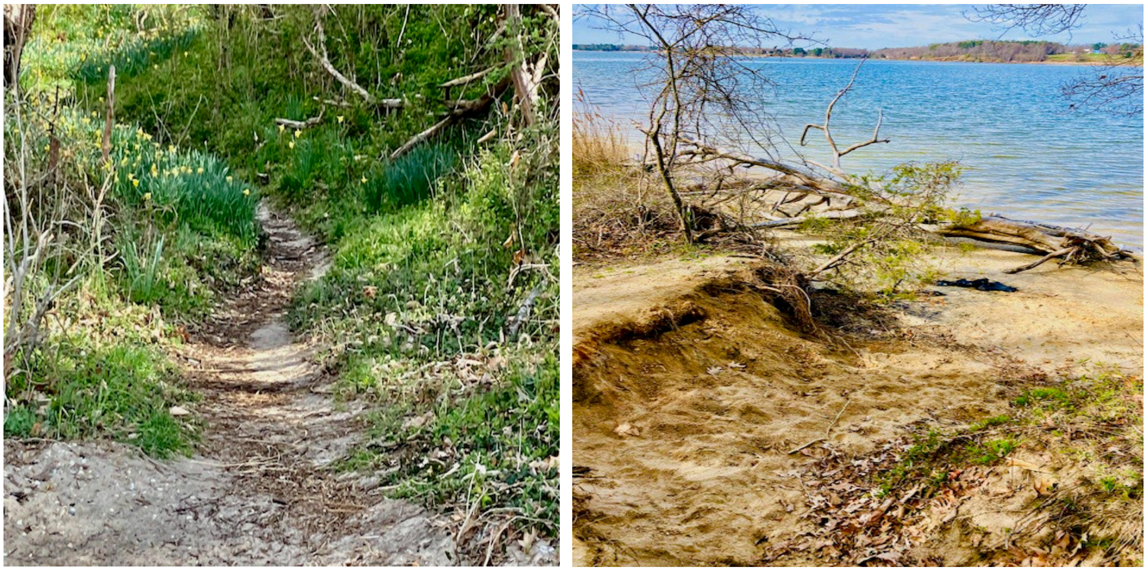
Destroying his Rosary so definitively must have hurt and frustrated Copley, and he must have wondered about retribution for this. The Feast Day of the Assumption apparently soon followed when the faithful would go to the water and invoke Holy Mary's blessing on the sea.

Copely wrote: *"Scarcely a year having passed, on the returning vigil of the day on which he had abandoned his purpose of embracing the Catholic faith a more sacrilegious playfulness possessed him as was noticed by his companions…. Therefore, in the afternoon … he had taken himself to the river for the purpose of swimming."*

We propose a site for this emerging event: a modest walk from the fort, direct to the river, where there is a steep bank, eroding so trees fall down to the water's edge, yet there is clean bottom easily waded out to depth, and beyond a deep navigable channel sweeping close to shore. It's possible that Copley and his people could have been nearby on procession to the water for the August 15 blessing.

This could of course happened at some other steep banked site along the shoreline or on the far side of St. Inigoes Creek but less likely on the nearby Potomac because of the flatter topography. We can never know.

Like today, Chesapeake summers were hot and humid, especially when trapped in heavy English dress. John Smith, thirty years before, left for his famous Bay explorations in part to escape the cloying heat at Jamestown. Swimming was unusual; in medieval Europe it was thought to contribute to illness and spread epidemics. In 17th century England, there are virtually no records of swimming for pleasure**.**



A path down to the bank of the St. Mary's River, called the St. George's River at the time of the attack and, at right, its eroding shoreline and wade-able depths. (Kent Mountford)

Copley clearly viewed this as "sacrilegious" behavior but our man, understandably wanting to cool off, likely shed his heavy English garments and was surely exuberant at his entrance into the cooling "river" — not a smaller creek.

Copley describes what happened next: *"…scarcely had he touched the water when a huge fish having suddenly seized the wicked man, before he could retreat to the bank, tore away at a bite, a large portion of his thigh, by the pain of which most merited laceration, the unhappy wretch was in a short time hurried away from the living*."

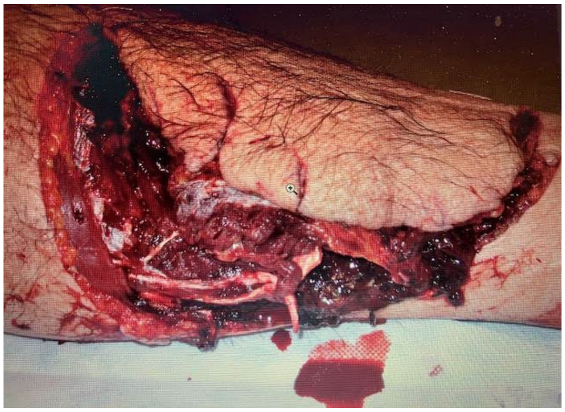
Physician Fernicola's understanding of this injury is complete. Most shark bites on humans are mis-identification accidents, and some sharks first bump or nudge their prospective prey, then take a test bite. This event appears unprovoked, a probable "sneak attack" with predatory intent. Coming onshore with afternoon light overhead, the shark's solitary target is visible, accessible and possibly splashing.

Copley writes onward that he believes this was clearly *"Divine justice bringing it about that he, who a little while before boasted that he had eaten up his 'Ave Maria beads' should see his flesh devoured, even while he was still living."*

His letter to Rome ends on that decisive note.

What manner of "huge fish" spelled this man's terrible end? Surely a shark. Evidence suggests that it was a large bull shark (*Carcharhinus leucas*). Among the world's large predatory sharks, this species is often described as the third most likely to harm humans.

Their teeth are sharply pointed in the lower jaw, to hold prey, and serrated like kitchen knives in the upper jaw, to slice flesh. The shark bites, then thrashes its massive body resulting in a crescentic (semicircular) avulsion, in this case from the thigh, removing some two thirds of the flesh between hip and knee in a single bite. This can fatally sever the large groin arteries causing rapid, progressive, hypovolemic shock and massive blood loss and death — in this case, right before the victim's stunned companions.



A similar modern injury from a shark bite, survivable with modern medicine if bleeding can be quickly controlled. (Trinity Air Ambulance International)

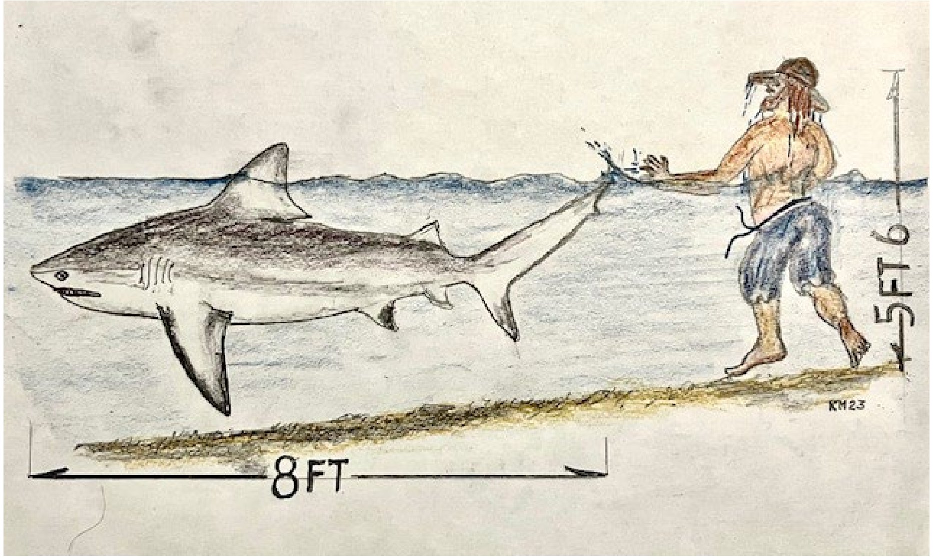
This is the earliest known record of an unprovoked fatal shark attack in North America, occurring on a summer afternoon, on or about the August 15, 1640. It was also the earliest record of a shark attack in Chesapeake Bay.

The Global Shark Attack File lists the previous earliest record of a fatal event as 1642, which Fernicola himself had reported from the 1809 writings of Washington Irving. He now concludes the St. Mary's attack could have been sourced from Irving's own Jesuit background, taken as derivative lore and blended into his fanciful 1642 account claimed near Manhattan Island, NY.

Because this is so far the first such event recorded on the North American continent, we took some months to look in detail at how people and sharks have interacted on the Chesapeake since. Presenting this effort requires separate detailed treatment but, with data from several researchers, we have identified over 180 records between 1840 and 2021.

We found references to 138 sharks, many just called "sharks," "man eaters," or just "huge fish." Some others were given possibly incorrect species names but from a very complicated story, some insights emerge. Forty-two to fifty percent of all sharks reported were called "bull sharks" (*Carcharhinus leucas).*

Fernicola, with long experience evaluating such occurrences, finds that sharks tend to choose prey smaller than themselves, thus the size of a human is important. For all "larger sharks" recorded in the Chesapeake, the average length reported was 8.07 feet and those that included weights averaged 347 pounds. Thus, many sharks that have visited the Bay over 181 years are compatible with the 1640 fatal event. Men in the 17th century averaged about 5 feet 6 inches tall.



An average size adult bull shark compared with an average size Englishman of the 17th century. (Kent Mountford)

Historically, bull sharks have coursed over the entire Chesapeake from Cape Charles and Norfolk, VA, to Pooles Island and the Elk River, MD, at the head of the Bay. They have run up the Potomac past the St. Mary's River to Fort Washington, Alexandria, and the Anacostia River, in sight of the nation's capital. They are physiologically capable of traveling into fresh water, and they do so more easily in droughty conditions, like 1640.

Broadly, almost all sharks are summer visitors, but their reported occurrence peaks around August. This was the case since before the 1850s. It is highly probable that many or most of the sighted but unidentified sharks were also bull sharks.

Over all 181 years, people recorded only 7 sharks in May and June; there were only three in October. There was sometimes a decade when no sharks were reported, but in the 1950s there appear to have been more shark visitors. Still, grouping data in half century increments from the 1840s to the early 2000s, the numbers always clustered around August, when water temperatures at the Potomac mouth, near where this fatality occurred, range from 75 to 85 degrees Fahrenheit, as assessed from over three decades of Chesapeake monitoring data. Bull sharks like warmer water.

A serrated tooth from the upper jaw of a bull shark in 1979. (Marc Meteyer)

In August of 1979, then-young Chesapeake ecologist Walter Boynton and his crew were seining fish in a grass bed off Parson's Island near the Bay bridge. A bull shark in their net was attacking trapped cownose rays (*Rhinoptera bonasus*), scaring his crew. Dr. Boynton said, "They vaulted out of the water like seals!" and wanted hazard pay.

A cownose ray exhibits its "wings." (Kent Mountford)

One of Kent Mountford's lab technicians, Marc Meteyer, was aboard Boynton's research boat and collected a shark tooth left behind in a bitten ray's wing. It was later determined to be from an 11½-foot bull shark. He took the tooth to a University of Maryland lecture by Eugenie Clark, then known world-wide as the "shark lady." She told him and likely everybody present that, "If we didn't have a jellyfish problem in the Bay, we'd have a shark problem."

Are sharks something we should all fear? Probably NOT. Drowning is a far bigger risk to boaters and swimmers. Mountford, who swims every year in the cove next to his home, thinks of them every time he enters the water, but nothing there has bitten him in over fifty years.

"Shark lady" Eugenie Clark

Acknowledgements

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