

# MARINE NOTES



M.E. Warren

For years Chesapeake Bay watermen have captured the imaginations of writers, photographers, filmmakers and others who love the region. The solitary oysterman balanced on the edge of his workboat tonging for oysters, the skipjack under full sail dredging dark waters for Chesapeake gold, the crabber hauling out pot after pot or scooping crabs along a trotline — these are the iconic images that evoke an independent life lived in the open.

Watermen are quintessentially American. When people think of Chesapeake watermen, though, rarely do they think of blacks — and yet African Americans have been harvesting and sailing the Bay since first coming to its shores. Though long and rich, this tradition has until recently remained largely undocumented. Does the life experience of a black waterman differ from that of a white waterman? Some of the similarities and differences emerge in the interviews that follow. These stories provide a glimpse into the lives of men — Sam Turner, Wilson Cannon and William Wallace — from three generations of

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## SPOTLIGHT ON CULTURE

# Black Men, Blue Waters *African Americans on the Chesapeake*

BY HAROLD ANDERSON

## Black Men, continued

black watermen on Maryland's Eastern Shore, whose collective memories span much of this century.

### Captain Sam Turner, Bellevue

Dapper and eloquent, Captain Sam Turner is a dynamic presence at the age of 85. Turner was born and still lives in Bellevue, Maryland, a tiny historically black community nestled on the Tred Avon River just opposite the town of Oxford. Turner and two of his sons own and operate Bellevue Seafood Company, Inc., located on their property along the river, where they process, package and sell oysters and crabs. Turner's conversation ranges from working the water and building boats to social policy to seafood marketing strategies on the World Wide Web.

Turner's father and grandfather were both watermen who made a living oystering, crabbing and hauling freight on their boat to and from Baltimore. They were poor, says Turner, but "everybody was poor, black and white." According to Turner, most local black people made their living on the water because there was more money doing that than anything else. They also grew vegetables and raised a few animals; there was always something to eat: "We didn't know we were poor — we had a place to eat, we had friends."

Turner began tonging for oysters when he was in high school. "At that time, people would start up here at the ferry wharf and go all the way to Benham's Point, which is about three miles...you could catch oysters all the way down there." Atypically for the time, Turner went on to obtain a high school diploma. "A high school education then," he says, "was more than a college education now."

On the subject of black-white relations, Turner says, "You hear a lot about discrimination and all that stuff, but you didn't have none of that on the water. White folks and black folks all worked out there together." The schools weren't integrated, he says, but the life of the black and white

watermen was the same. "That was what made us get along so well — he was just as poor as I was. We had white friends, we had black friends, but there wasn't no friction down here amongst the watermen. We'd work on the same [oyster] bar right alongside them. There ain't no color line out there on that river."

During the Depression, things were difficult for Turner and his family, as they were for everyone, though the hard times also brought new opportunities. Turner joined the Civilian Conservation Corps and for two years worked in Dinwiddie, Virginia. He sent his money home, and when he returned in 1939, he and his father used the accumulated capital to buy the land where his business is still located today. "My father bought from a [white] man down here and that was unusual then, selling property to black folks. But somehow he sold it to us." Turner's father had a head for business and the family did well. During World War II, Turner served for two years in Europe and Japan, and when he returned his father had expanded the business, putting up a second, larger building next to the first and employing more than 40 oyster shuckers.

Turner's father often bought oysters from whites, who caught most of the oysters. "Money ain't got no color," says Turner. After the war, he and his father managed the business



Harold Anderson



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*Above: Captain Sam Turner stands on the shore near his home in front of one of the boats he built. Below: the seafood processing business Turner founded with his father in 1939. Opposite page: At left black watermen hand tong for oysters in years past. At right is Wilson Cannon, who began tonging for oysters in the early '50s.*

together, selling in Baltimore as many oysters as they could process. In the '50s, Turner expanded his business to include shucking clams, and he eventually bought clamming boats as well.

While business continued to go smoothly, social change was in the air, says Turner. "I remember in '54 when the school segregation thing [Brown vs. the Board of Education] happened. A [white] friend of mine, well, he didn't think it was a good thing! He surfaced — [his attitude] never revealed itself until they passed that law."

In rural areas like the Eastern Shore, and particularly among water-

men with their self-sufficient ethos and independent lifestyles, racism and conflict were more muted than in cities. “We knew that racial mess was going on — we felt it,” says Turner. If you went out, you felt it, even if it didn’t show itself.” Turner’s son Edzel adds, “This was a part of the culture and it’s almost like the hum of an electric motor — it’s there but you don’t really hear it until something calls your attention to it . . .” Turner’s children were in high school at the time. “They had me out there in that stuff, demonstrating in front of restaurants. A lot of older people had too much to lose. They had bank mortgages and other responsibilities. But we was all for it! Those college boys went in there and really broke it open.”

Turner’s business took a beating during the ’70s when Hurricane Agnes hit the Bay, flooding it with fresh water and wiping out clams, the

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most lucrative part of his business at the time. “Agnes was the one that almost put us out of business,” he says. Turner had to borrow money, which he eventually paid back, but he says that his business never returned to what it was before Agnes. Even so, the business does well enough to support his sons Edzel and Hayward, who run it these days, while Captain Turner keeps busy helping out.

As for black men working on the water, Turner says, things have changed. “My generation was the last of the Mohicans. None of my boys followed the water. They went to school and got educated. Just about everybody down here went to college. It’s much better than on the water. More opportunities. We didn’t have opportunities the children have now. There ain’t no excuse for them not doing nothing.”

Says Edzel, “We did have [limited opportunities] when I came along. Most of us went to school and moved out of the area. What prejudices there were here, we ran away from them.” Yet he and Hayward later returned to join the family business. “It’s a good place to raise children,” he says.

Bellevue is unchanged in many ways, but some things are different. Turner now has white neighbors too, people who moved there from the city. “A lot of white folks are coming

down here because it’s nice country,” Turner notes. “They’re welcome. They come down here and go to the churches. The churches couldn’t survive without some of these white folks’ donations. The old people are dying out.” Asked to compare the past to the present, Turner sums it up like this, “You know they talk about the good old days, well they really wasn’t that good. I’d rather have it like it is now. Even with its problems.”

### **Wilson Cannon, St. Michael’s**

“Of all the work I’ve ever done I’d rather work on the water than anything in the world.” says Wilson Cannon, who began life 63 years ago in Crisfield, Maryland. “[Working the water] is the hardest work in the world, you know,” he says. “And I still love it — nothing like working on the water for me. You can get up in the morning and see the sun when it’s coming up.”

Cannon left Crisfield as a young man in the early ’50s for St. Michael’s and an opportunity to work as a waterman. He didn’t know any black watermen in Crisfield at the time. Most of the work for blacks there was in packing houses picking crabs and shucking oysters. When he left Crisfield, there were 26 oyster and crab houses with “plenty of work for anybody who wanted it.” But Crisfield did not fare well economically over the years. “There are only two or

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M.E. Warren



Harold Anderson

# Slavery, Freedom and the Chesapeake

BY HAROLD ANDERSON

In the days before the U.S. Civil War blacks in America had a profoundly different view of work on the water than did whites. For black people who sailed ships the harsh life on the sea was a step up from the lot of a slave on land. Sailing ships represented economic opportunity and the possibility for self determination and dignity. Black sailors traveled to distant places and encountered other cultures, bringing knowledge back to their slave counterparts who usually spent their lives in one small region. These sailors linked far-flung black communities and united plantations to urban centers.

As early as 1796, the federal government issued Seamen's Protection Certificates which defined these black merchant mariners as "citizens" — America's first black citizens. "Black jacks," as they were known, were so common by the mid 19th century that Eastern Shore-born Frederick Douglass, when he escaped to freedom, did so by borrowing the uniform and papers of a free black sailor and then simply taking the train north from Baltimore.

## The Roots of Slavery

The first slaves were brought to the Chesapeake region in the 1600s to work in the fields and homes of colonists, largely because of the decline in the number of indentured servants. At first the numbers of slaves were small, but the evolution of an economy based on growing labor-intensive tobacco caused a massive upsurge in their numbers, so that by 1750 there were an estimated 165,000 blacks, mostly slaves, on the Eastern Shore of Maryland.

By 1790 the soil in the region was depleted from overplanting, and the market for tobacco collapsed. This collapse rendered the keeping of slaves — especially in the numbers formerly required for the farming of



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***Some of the most restrictive legislation was designed to prevent blacks from participating in maritime industries.***

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tobacco — economically impractical. This economic reality, coupled with moral forces like the Methodist Church's stance against slavery and the endorsement of freedom and human dignity explicit in the Declaration of Independence, resulted in the freeing of many slaves by the late 18th and early 19th centuries. Enclaves of free blacks eventually became full-fledged African American communities.

The transition from small enclaves to free black communities with cultural identities and potential economies of their own did not sit well with many whites on the Eastern Shore, particularly while the greater number of blacks were still held as slaves. White fears were exacerbated by slave uprisings like the Nat Turner insurrection of 1831 in nearby eastern Virginia.

As a consequence, extremely restrictive laws were passed to regulate the advancement of black economic and social interests in the region, and

to discourage migration. Free blacks were excluded from public schools, from combat roles in the military and from giving legal testimony against whites. Historian Kay McKelvey, Eastern Shore coordinator for Sojourner-Douglas College, has researched Black History in the late 18th to the mid-

19th centuries in Dorchester County on the Eastern Shore. According to Dr.

McKelvey, some of the laws were especially arbitrary and petty. "[A free black] could only sell certain products to other blacks — he couldn't sell to whites. He had to be off the street sooner than [whites]. He couldn't own a dog. If he didn't have a job, he had to pay a \$15 fine and leave the state. These laws were set so that you could not rise."

Some of the most restrictive legislation was designed to prevent blacks from participating in maritime industries, the oystering business in particular, and especially in a management or ownership capacity. In 1836, a bill was enacted that forbade blacks from captaining any vessel large enough to require being registered. Owners of boats in violation of the law would have their boats seized and sold. Half of the proceeds went to the informer who reported the offense. This kind of law contributed to a culture of legal and institutionalized suppression.

Still, legally or not, blacks continued to work the water in various capacities, from shipbuilders to crew, even captaining by subterfuge — frequently with the complicity or protection of whites. Many of these ingrained cultural patterns persisted in the form of discrimination and paternalism long after the repeal of the most pernicious laws. Says McKelvey, "The white people in this area more or less had a feeling of 'I am your boss. I am to take care of you. I will make everything O.K. for you. But don't you rise higher than me.'"

## The Promise of Freedom

At the end of the Civil War black labor was well established as an essential part of the Chesapeake region, just as it was in many other areas of the South. Since the Chesapeake Bay was, by 1860, the main supplier of oysters in the United States, oystering was a natural pursuit for blacks, as it was for others. With little capital outlay required and a high demand for seafood, which had begun to boom in the late nineteenth century, individuals could make a modest living alongside larger companies that were operating for much bigger stakes. "Oystering was one of the highest paying jobs for black men," says McKelvey.

Along with harvesting oysters, there was work on vegetable farms and in the canning, preserving and food packing industries that grew in tandem with oystering and agriculture on the Eastern Shore. For most of the 20th century, blacks comprised the majority of workers in oyster and crab processing houses. Men, women and children worked year round canning tomatoes and vegetables, picking crabs and shucking and packing oysters.

By the early part of this century, a new kind of repressive system was created in an attempt to disenfranchise blacks. In addition to the growing acceptance of white violence as a means of race control, African Americans were subjected to "Jim Crow"

laws that segregated hotels, steamboats and passenger trains that had never been segregated formerly. Thus began the period of so-called "separate but equal."

Despite legal and social repression, the next few decades began to bring incremental improvements in the lot of blacks. The pace quickened in the period following World War II, as America sought to demonstrate its democratic and egalitarian principles to the world. In 1954, the Supreme Court in "Brown v. Board of Education of Topeka" struck down racially segregated schools. Ignoring the Supreme Court's decision, all nine counties of the Eastern Shore retained racially segregated school systems until 1968 when the last impediments of racial segregation were finally removed from education on the Shore.

Federal and state laws have since eliminated any legal basis for discrimination, yet in many communities throughout the nation, coastal and inland, difficult problems of race persist and admit of no easy solution. While blacks and whites on the Eastern Shore, as in many other places, have often lived separately and unequally on land, some of them worked together, side by side on the water, where nature held the upper hand, and harvests did not know racial boundaries. ✓

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*Sandy Rodgers contributed to this article.*

## For Further Reading

*Black Jacks: African American Seamen in the Age of Sail*, W. Jeffrey Bolster, Harvard University Press, 1997.

Few Americans recognize the degree to which early African American history is a maritime history, says the author of this book, which chronicles seafaring among enslaved and free black men from 1740 to 1865. They endured the often extreme hardships of life at sea, while also serving as the eyes and ears to worlds beyond the limited horizon of black communities ashore. An epic tale of the rise and fall of black seafaring, this account reveals the critical role sailors played in helping forge new identities for black people in America.

*Maryland's Eastern Shore: A Journey in Time and Place*, John R. Wennersten, Tidewater Publishers, Centerville, Maryland, 1992. Historian Wennersten has divided this book into three sections — Soil, Soul and Sea — and in them gives a thorough accounting of the ways in which agriculture, slavery and water-related industries have shaped the Eastern Shore from its earliest days to the present.

*The Weather Gauge*, a scholarly journal produced by the Chesapeake Bay Maritime Museum in St. Michael's, has published the articles listed below about African American maritime history on the Eastern Shore.

"Bellevue Seafood Company," J.E. Aliyetti, Volume 33, Number 2, 1997.

"Black Oystermen of the Bay Country," L.W. Harvey, Volume 30, Number 1, 1994.

"Black Pioneers of Seafood Packing," R.J.S. Dodds, Volume 22, Number 1, 1986.

"Curtis Downes, Sailmaker," D. Hanks, Jr., Volume 33, Number 2, 1997.



Maryland State Archives

## Black Men, continued

three crab houses left in the town. You wouldn't believe that place has gone from being the biggest seafood [processing] industry in the world to where it is now. Half the town is closed up — no work or anything down there now. The poorest place around," says Cannon.

In contrast to Crisfield, St. Michael's had not only a well established community of black watermen, but once had two black-owned processing businesses — Colbourne and Jewett, which went out of business around 1946, and the Turner family's operation, in nearby Bellevue. Cannon moved up from Crisfield to learn how to work the water from his brother-in-law. He went on to make his living tonging for oysters and crabbing. Six or seven years ago he stopped tonging because of the decline in oysters, but he still crabs occasionally. Over the years, when he wasn't out on the water, Cannon also worked for Bellevue Seafood shucking oysters.

According to Cannon, when he first started working in St. Michael's, "there were so many black watermen, you couldn't count them. Today there are only three."

As far as differences between whites and blacks on the water, Cannon says he saw very little. "Both have to go through the same hardship," he says. At one time there were some differences in the way some buyers treated the black watermen, Cannon remembers. Whites got paid "a few dollars more than we did. There used to be a little bit of that, but not a lot." There were also times when he says he would catch the same quality oyster and the buyer would say that his weren't as good as those being sold by a white man. He says it's changed a lot since then.

Life for watermen, both black and white, began to change in the late '70s, says Cannon. He recalls one year when the river froze up during Christmas week and didn't thaw until the first week in March, leaving them idle. What little credit they had was gone and it was a tough time. Cannon feels that the business has been slowing

ever since. "Most of the young people are not getting into the water business anymore," he says. "It used to be a pretty good living, but not anymore. You might only have a couple of months of the year that you might do well. Young people are looking for a better job with more security."

Everybody wonders about him, he says. "How did I manage to send three kids to college when I didn't know what I was going to make from one day to the next?" It wasn't easy, he concedes, and Cannon has looked for an easier time for his children. "I seen it coming and I talked mine out of [working on the water]. You gotta look for something better than that," he says. "And they're glad they did."

### Reverend William Wallace, Deal Island

William Wallace started early getting "that salt water in your face." He remembers being on the water with his father before he even started school.

At age 47, Reverend William Wallace is now pastor of the Waugh United Methodist Church in Cambridge. Though he eventually left the water — entering the ministry in 1974 — Wallace comes from a long line of watermen. Both his father and grandfather were watermen, as were several uncles and cousins. Wallace grew up surrounded by water on remote Deal Island, where he was born. At one time his grandfather owned several boats, but they were lost to accidents over the years — and lost completely, Wallace says, because the family was unable to obtain insurance on them.

The Wallaces were one of five black families that lived in a predominantly white neighborhood on Deal Island. "I remember having to go to the store and having to fight to get there. Then when I got to the store, I'd have to fight with the clerk because I'd buy two things and she'd put three on the books. Then I'd have to put down my purchase [on the way back and fight] to get home again. But then [at other times], you went together, white and black, as a group and if you picked on one, you picked on all."



Sandy Rodgers

*Above: Reverend Wallace, who grew up working on the water, stands before the Waugh United Methodist Church in Cambridge, Maryland, where he is pastor. At right: Skipjacks similar to those captained by Wallace's father.*

All his father ever did was work on the water, says Wallace. He tried some inland jobs, but was never satisfied with them. "I think it's the freedom, the freedom of being able to determine your own fate. If you went out there and worked hard, then you made money. If you went out there and didn't do anything, then you didn't make any money. You determined that — no one else."

Wallace also saw an intellectual challenge. On a skipjack, he says, you have to know where to find the oysters and at the same time you have to know the wind and current and the force of that current and know when to drop the dredges and when to pull them in. Then there is the physical challenge and the danger. Dredging for oysters meant living on a boat during the winter, without the comforts of home. It meant sleeping on a berth the size of a table and not being able to take a bath because the boat would be away from home for five days at a time. "You only get the day off if it's too windy," he says. "If it's rain, you're out there; if it's hail or snow, as long as it's not blinding, you're out there."

"The water," Wallace says, "does something to you. To view a sunrise from your backyard... somehow fails to capture the beauty of the sunrise that comes up over the water in the morning. Even the cold and the wind... to feel it in your bones. That has some kind of mystic attraction to




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***“It’s the freedom, the freedom of being able to determine your own fate.”***

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it. It might take me out of here, but it’s not a frightening kind of thing. You welcome it. You go home in the evening soaking wet and get up the next morning and start all over again. You’re either crazy or there’s something else that pulls you there.”

Though most of the people, white and black, who lived on Deal Island worked the water, his father and one other man were the only black skipjack captains on the island (the boats were owned by white men). “There is a strong bond between watermen,” says Wallace, “regardless of race. . . . Somehow that water bonds them together. There were no secrets, as much as others might have liked there to be.” He remembers that word got around — about price for example. “My father would argue with buyers that were giving white guys \$10 a bushel and only giving him \$8,” Wallace says. “Needless to say, he stopped selling to that particular buyer.”

Wallace also remembers the civil rights movement and demonstrations by college students in Somerset County in the ’60s. Most of the demonstrators were not from the area

— the local people tended to avoid involvement because there was a heavy dependence by blacks on whites. “A lot of them did not have bread the next day unless they got the quarter from white folk to feed

their children.” Some locals did boycott local businesses, opting to go to the trouble of taking a bus to Princess Anne or Salisbury to shop instead. He remembers his parents talking about the rioting and subsequent burning of the black section of Cambridge in 1967 after H. Rap Brown spoke there. “It scared everybody . . . to death.” Somerset County never experienced that kind of violence, he says.

Wallace’s father’s dream was to own a skipjack, but it was difficult for blacks to get financing to buy boats. He recalls his father talking about trying to get a loan from the bank. The owner of the skipjack his father captained heard about it and went to the banker and said, “If you give him the money, who’s going to dredge my boat?” So, Wallace says, his father didn’t get the loan. A few years later he had another opportunity to purchase a boat: “I remember my dad went to the banker and the credit references are fine, no problem there, and the banker refuses him the loan. At the same time there’s a white fellow who is interested. My father overheard the banker saying to him, ‘Well you owe me money now, you’re behind in your payments, but I’m going to let you have the money.’ So my dad didn’t get the boat.”

Despite the obstacles, Wallace’s father persisted. Years later, in 1975, he was finally able to purchase the skipjack *Claude Somers*. Before he could complete needed repairs, dredging season began and he couldn’t afford

to miss an opportunity to work. He and his crew worked through the winter with no problems — until mid-March, two days before the end of dredging season. The *Somers* went out on a day when the weather seemed workable, with no signs of trouble, but a violent storm blew in late that afternoon, one of the worst storms Wallace says he had heard of. “There was wind, rain, fog and lightning,” says Wallace. The batteries went dead on the pushboat and they were forced to sail — the skipjack began taking on water and eventually foundered. Lack of radio communication and dense fog prevented rescuers from locating them. His father and the crew, including Wallace’s older brother, uncle, two cousins and a family friend, all perished of hypothermia. “They were in Hooper Straits — if you go to Deal Island and look across you can see where they were. They were that close to home.”

Though Wallace still has a brother on Deal Island who works as a waterman, he says that as much as he loved it, he doesn’t do it anymore. “I think now that I’ve been out of it for too many years — I think I’ve grown soft,” he says. Still he appreciates what it takes to live that kind of life. “I never appreciated the wisdom of my father [years ago] and the skill of being a water person.”

Wallace remains connected to the water, he says, because water is also very significant in the black experience. Water in African American tradition, he says, “is symbolic of freedom, of separation, of purity. It’s symbolic of birth and death. The whole world’s experiences are transformed by that water. The [Middle] Passage [the forced transportation of slaves from Africa across the Atlantic to America] is part of that. The untold numbers that are a part of that experience. With all of the ugliness, yet the beauty of that — being able to endure and survive.”

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*Harold Anderson is a freelance researcher, writer, lecturer and musician who specializes in African American social history and arts.*

# Buoys Track the Bay

BY JACK GREER

Think of the Bay as a large lava lamp say scientists involved in the high-tech monitoring of the Chesapeake Bay. “We have known that stratified waters tilt from east to west in the Bay,” notes researcher Bill Boicourt of the University of Maryland Center for Environmental Science (UMCES). “But the dynamic is not a simple one.” The picture, captured by Scanfish, a towed electronic “wing,” is indeed that of a lava lamp-like wavy pattern, what Boicourt calls an “internal wave.” These waves are created as lower salinity water flowing from the Bay’s rivers mixes with high salinity water from the sea.

This picture of the Bay’s internal currents — a kind of estuarine equivalent to the medical system’s MRI — has been made possible by advances in electronic data gathering. In addition to the towed wing (see “A High Tech Fish,” *Maryland Marine Notes*, January-February 1996), scientists have used scanners from aircraft (ODAS) and, now, from satellites (SeaWiFS). The backbone of this high tech monitoring of the Bay is a buoy system known as CBOS, the Chesapeake Bay Observing System.

Unlike towed instruments and aircraft overflights, or even research vessels, buoys can remain on station day and night, week after week, month after month, gathering basic

data, such as salinity, temperature, wind speed and oxygen levels. Just as a physician can tell much about a patient by monitoring blood pressure, heart rate and body temperature, scientists can track the Bay’s vital signs to determine its changing character.

This is a particularly crucial time to track the Bay. According to Walter Boynton, also of UMCES, “For the first time since John Smith showed up, nitrogen levels are actually going down in the Patuxent River.” That trend downward results from a concerted effort to lower inputs of nutrients into the Bay, an expensive and expansive effort that has set as its goal a 40 percent reduction by the year 2000.

To know how the Bay is responding to such efforts, these scientists say, we need to take its pulse often and in different places.

“Imagine if the Dow Jones only reported stock prices once a month,” Boynton asks. “People would go nuts.” He compares this to changes in the Bay, where algae and other organisms may have life cycles on the order of two days or two weeks. A monthly measurement might easily miss a bloom or other event.

As Grant Gross, head of the Chesapeake Research Consortium, and others point out, changes in the Bay are often driven by “events.” Some events, such as the 1972 storm Agnes, gain wide attention, but many other events — sudden squalls, sustained winds that drive water out of the Bay, rapid temperature shifts — may go largely unnoticed. It is often these events which influence the movement of the Bay’s “internal waves,” shifting poorly oxygenated bottom waters upward, for example, and mixing warmer and cooler waters.

Conventional monitoring methods may well miss these key events, but the CBOS array of buoys can capture them, since they are constantly on station. At present there are four CBOS buoys, including a

“rover” buoy deployed to target specific areas such as the Patuxent River, at specific times. The original aim has been to have eight CBOS buoys stationed up and down the Bay, though at \$60 to \$70 thousand the system remains an expensive proposition.

“We need partnerships,” says Boicourt, who encourages other researchers to participate. Federal agencies will be key partners in the success of the effort, including the National Oceanic and Atmospheric Administration, the U.S. Coast Guard, and the Department of Defense, to name a few.

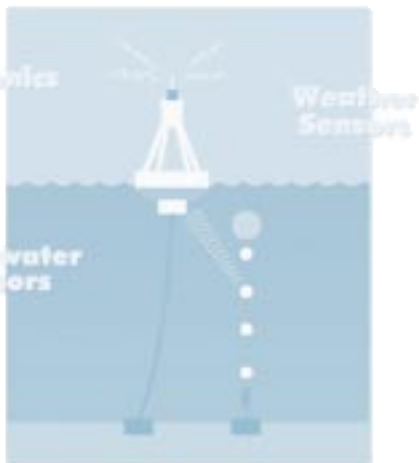
To help people access the data, Lowell Bahner from the U.S. EPA and others are working to link web sites, search engines and databases. According to Bahner, users will eventually be able both to query lists of information and to search for specific details from databases in a single stroke. Such data and information will not be held in at one large source, but will be distributed among a number of sources, each of which will maintain their own systems.

Of course consistency will be key, says Bahner, as will understandable methods of presenting the data to a wide range of users.

“We need to develop a set of indices,” said Boicourt, so users can easily track specific trends in the Bay. “Let’s face it,” he added, “Americans love to keep score.”

## Ocean Pioneer Dies

Athelstan Spilhaus, 86, a geophysicist, meteorologist, inventor, and a leading proponent of encouraging oceanography studies through the establishment of the Sea Grant Program in 1966, died in March. A native of South Africa, he became a U.S. citizen in 1946 and served as the U.S. ambassador to UNESCO in 1954. With a masters degree in aeronautical engineering from MIT and a doctorate in oceanography from Cape Town, he spent the bulk of his career at the University of Minnesota, where he became a meteorology professor and dean of the university’s technology institute.



On the web: Track real-time changes on the Bay with CBOS at <http://cbos.bpl.umces.edu>.



## Virtual Research

VIRTUE (VIRtual University Education) is the name of the virtual international university component of a collaborative project developed by the University of Goteborg, Sweden, the University of Bergen, Norway and the University of Maryland Biotechnology Institute.

The aim of VIRTUE is two-fold. First, the program has established a number of collaborative marine science projects that emphasize marine biotechnology. Second, using the collaborative research as a base, steps have recently begun to implement a virtual university concept to provide joint graduate courses within the three universities.

State-of-the-art information and communications technologies employing both real time video conferencing and asynchronous internet-based forums will be employed for lectures, class discussion and study. VIRTUE will serve as a unique demonstration of the benefits of university collaboration internationally on a daily and operational manner.

Among the collaborative projects, each with multinational investigators, are the following: finfish reproduction and growth enabling the intensification of aquaculture; novel gonadotropin-releasing hormone of fish, its function, regulation of synthesis and release, and potential use for spawning manipulations in important fish species; microbial processes and regulation of biofilm formation; the distribution and temporal dynamics of *Vibrio* in estuarine environments; the use of luciferinase reporter gene fusions as sensitive and specific monitors of environmental pollution; the metabolic strategies of hyperthermophilic *Archaea*; and the sequestration of uranium and other heavy metal pollutants using a newly isolated *Pseudomonas* strain.

For more information about VIRTUE, contact William Busch, Associate Vice President, Academic Affairs, University of Maryland Biotechnology Institute, 701 East Pratt Street, Baltimore, Maryland 21202, phone (410) 234-8856, e-mail: Busch@umbi.umd.edu.

## UMCES Lab Holds Open House

Visitors can explore the world of marine science at an UMCES Horn Point Laboratory open house on Saturday, May 16 from 10 a.m. to 2:30 p.m. The laboratory, located on the banks of the Choptank River near Cambridge, will open its doors to the public for self-guided tours, exhibits, presentations, and hands-on activities. This year's theme is "Exploring Changes in Your Environment: From Microorganisms to Chesapeake Bay and Planet Earth."

The open house provides people of all ages a chance to take a close look at coastal environmental research. UMCES scientists, students, and staff will highlight current environmental changes — from local Eastern Shore issues to global challenges. Visitors can talk with experts about ongoing efforts to understand the Choptank River watershed, explore high-tech sensing equipment used to monitor the Chesapeake Bay, and learn more about the link between nutrients and dinoflagellates like *Pfiesteria*.

Kids can enjoy special activities and projects throughout the campus including a touch tank filled with Bay animals. In addition to the Horn Point open house, other events in the area include:

### Saturday, May 16

6:30 to 8:30 AM

Bird watch walk led by UMCES Vice President Dr. Wayne Bell. Meet at the campus entrance off Horns Point Road, wear comfortable shoes, and bring binoculars and/or scopes. Bird walk will be canceled if weather is inclement. Free.

### Saturday & Sunday, May 16 & 17

9:00 AM to 5:00 PM

Antique Aircraft Fly-In: a two-day event featuring 300 antique aircraft on display at the Horn Point airstrip adjacent to the laboratory. Free.



### Sunday, May 17

11:00 AM and 1:00 PM

One-hour skipjack cruises aboard the *Nathan* of Dorchester leaving from the Horn Point marina. Tickets are \$10 and can be purchased by calling (410) 221-0776.

Taking part in activities will require some walking so comfortable shoes are recommended. Refreshments will be available and picnic areas are plentiful. For more information about the open house, call (410) 228-9250, ext. 609.

UMCES is the lead institution for coastal environmental research within the University System of Maryland. Its three laboratories — Appalachian Laboratory in western Maryland, Chesapeake Biological Laboratory in southern Maryland, and Horn Point Laboratory on Maryland's Eastern Shore — are strategically located to provide access to Maryland's principal environments and their natural resources. UMCES faculty members conduct research on coastal environmental problems locally, nationally and worldwide.

**Directions to HPL:** From Rt. 50 in Cambridge, take Rt. 343 west (Washington Street) for 3.5 miles to Horns Point Road and turn right. Proceed 1.5 miles to the "Ram" gate; follow parking attendant's instructions.

## Oceans Should Come First, Says Poll

A national poll conducted last August shows that Americans feel ocean exploration should take precedence over space funding. Of those polled, 55% said that ocean exploration should be the priority, while only 35% chose space. The poll also showed that most Americans are greatly concerned about the state of the world's oceans. The public, concludes SeaWeb, who commissioned the poll, is both aware of and troubled by declining ocean conditions.

More than half of those polled rated the overall health of the ocean negatively; 85% said that the destruction of the ocean represents a threat to quality of life; and 60% believed that the condition of the ocean has gotten worse over the past few years. In addition, 80% said that we are dumping too much waste, oil and agricultural runoff into the ocean while half felt that too much is being

taken from the ocean in terms of commercial fishing and oil drilling. The poll was conducted by the Mellman Group for SeaWeb, a non-partisan, multimedia educational initiative on the ocean and a project of The Pew Charitable Trusts.

## On the Web

### The NOAA Report

The *NOAA Report*, an in-house publication that comes out every month and highlights various NOAA activities, is now available on the web, <http://www.publicaffairs.noaa.gov/nr>. This month's feature is about the "Classroom at Sea Program" and the online issue of the publication includes color photos of teachers and students on board the research vessel *McArthur*. The program began as NOAA's Teacher-At-Sea Program several years ago, but it now involves students, websites, NMFS, the University of Washington and others.

### Connecticut's Year of the Ocean

Connecticut Sea Grant is promoting the International Year of the Ocean Celebration through a variety of activities including a new website. The site includes activities taking place in Connecticut as well as links to other sites with information about the celebration. On the site's calendar of events is Mystic Seaport's laying the keel for the replica it is building of the vessel *Amistad*, recently featured in the Steven Spielberg movie by the same name. In addition, the Mystic Aquarium has a new Institute for Underwater Exploration. To see these and other educational resources related to the ocean, visit <http://www.Ocean98CT.org>.

## Conferences

### Striped Bass Research



**"STRIPER 2000: Research Advances on Striped Bass and Its Hybrids," June 6-7, 1998, University of Maryland, University College Inn and Conference Center, College Park, Maryland.**

The conference will bring together the nation's leading scientists on striped bass to discuss the current state of issues critical for the aquaculture industry.

Those issues include genetics, reproduction and growth, nutrition and feeding, production technology, disease and utilization. Dr. James Carlberg, Kent Seafarms will give the keynote address, "The Growth of the Striped Bass Aquaculture Industry." In addition, state aquaculture coordinators from Maryland, North Carolina and South Carolina will address policy issues and a panel representing industry, government and non-governmental organizations will discuss needed priorities.

The conference is sponsored by the Maryland Agriculture Experiment Station, the Maryland Sea Grant College and the Striped Bass Growers Association. Registration costs \$125 (\$75 for students) and includes conference materials, reception, lunch and dinner. For conference agenda or to register, visit the web, <http://www.mdsg.umd.edu/stripers2000>, or contact: Fred Wheaton, Biological Resource Engineering, 1439 Animal Science/Agricultural Engineering Building, University of Maryland, College Park, Maryland 20742, phone (301) 405-1198, fax (301) 314-9023, e-mail, [fw4@umail.umd.edu](mailto:fw4@umail.umd.edu).

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For more information about Maryland Sea Grant, visit our web site:

<http://www.mdsg.umd.edu/MDSG>



# End Notes

## Publications

■ **El Niño.** A new publication from Oregon Sea Grant explains in words and vivid images the climate phenomenon called El Niño that has caused so much havoc with this year's weather from California to the East Coast.

Titled *El Niño*, the full-color eight-page publication is intended for a broad audience, including people who live and work on the Pacific coast, weather buffs and anyone interested in understanding the complex interplay between wind, current and water temperature in the Pacific Ocean.

The publication outlines what scientists know — and what they still do not know — about how El Niño may affect Pacific weather and fisheries.

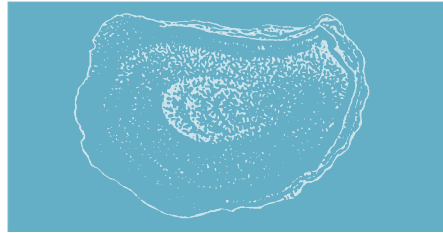
To order the publication, which costs 50 cents per copy, write: Oregon Sea Grant Communications, 402 Kerr Administration Building, Oregon State University, Corvallis, OR 97331; orders may also be placed via the Oregon Sea Grant world wide web site at <http://seagrant.orst.edu>. Teachers can e-mail or call (541) 737-2716 for classroom rates.

■ **Stream Water Quality Data on CD-ROMs.** The U.S. Geological Survey recently published a two CD-ROM set consisting of stream water quality data from two national networks operated during the past 30 years. The CD-ROMs are a source of information for tracking water quality conditions in major rivers of the U.S. (618 stations from 1962-1995) and selected streams in small minimally-developed watersheds (63 stations from 1962-1995).

The CD-ROMs include measurements for 122 physical, chemical, and biological properties of water and data on watershed population and landcover characteristics. To test this resource, access one of the disks through the Internet at <http://www.rvares.er.usgs.gov/wqun96>. Further

information on the purchase or questions regarding the disks can be found at: <http://water.usgs.gov/lookup/get?/fs01397>.

## Call for Abstracts



■ **Shellfish Restoration.** The Second International Conference on Shellfish Restoration (ICSR '98) will be held November 18-21, 1998, on Hilton Head Island, South Carolina. The conference will provide an opportunity for government officials, resource managers, users and residents to discuss approaches to restore coastal shellfish ecosystems.

Sessions at the conference will be organized around three general themes: habitat assessment and restoration, stock enhancement, management and restoration, and remediation through watershed management and pollution abatement.

Abstracts are being accepted for consideration by the Conference Program Committee through June 30 from those with experience in shellfish management, research or restoration.

For more information, contact Elaine Knight at S.C. Sea Grant, 287 Meeting Street, Charleston, SC 29401, phone (843) 727-6406, fax (843) 727-2080, e-mail: [knightel@musc.edu](mailto:knightel@musc.edu).

■ **Wetlands Workshop.** The Regulatory Interagency Steering Committee is hosting the first Wetlands Regulatory Workshop on November 4-6, 1998 at the Holiday Inn on the Boardwalk in Atlantic City, New Jersey. The purpose of the workshop is to increase dialogue and foster partnerships between federal,

state and local regulatory agencies and communities.

Representatives from federal, state and local governments, the private sector and academia are invited to submit abstracts on any aspect of tidal and non-tidal wetlands. For details about submitting abstracts, which are due May 22, 1998, contact: Ralph Spagnolo (3ES30), U.S. Environmental Protection Agency, Region III, 841 Chestnut Building, Philadelphia, PA 19107, phone (215) 566-2718, fax (215) 566-2782, e-mail, [spagnolo.ralph@epamail.epa.gov](mailto:spagnolo.ralph@epamail.epa.gov).

## Request for Proposals

■ **Chesapeake Bay Program.** The Chesapeake Bay Program (CBP) is announcing the availability of challenge grants for on-the-ground habitat restoration projects that will support CBP living resource and habitat commitments. Grants typically range from \$10,000 to \$75,000.

This is the sixth year of the challenge grant offer. Projects involving riparian zones, in-stream habitat, emergent freshwater wetlands, forested wetlands, and similar freshwater habitats are being solicited. Grants cannot be awarded without a minimum of one-to-one nonfederal match.

Guidelines for submitting a proposal are available at the CBP website, <http://www.chesapeakebay.net/bayprogram/new/newhome.htm>. Those without web access may contact Amy Zimmerling by e-mail at [zimmerling.amy@epamail.epa.gov](mailto:zimmerling.amy@epamail.epa.gov) or by phone at (410) 267-9842 to receive a copy of the RFP guidelines.



# Calendar

## June 1-12 — Biotechnology Workshop

University of Maryland, Baltimore County. UMBC is sponsoring this ten-day, laboratory-intensive biotechnology workshop in "Recombinant DNA Methodologies and Applications" which is designed for faculty, post-doctoral and graduate students, industry researchers, medical residents and laboratory technicians. For information about registration and fees, contact the Continuing Education Department, 1000 Hilltop Circle, Baltimore, MD 21250, phone (410) 455-2336, fax (410) 455-1322.

## June 6-7 — Striper 2000

College Park, Maryland. "Striper 2000: Research Advances on Striped Bass and Its Hybrids" is a conference that will provide a forum for scientists, producers, extension specialists and agency representatives to discuss state-of-the-art research in striper culture and the potential for increased production. For details, see page 10.

## June 7-12 — Focus on the Chesapeake

Chestertown, Maryland. "The Chesapeake Environment: Our Great Shellfish Bay" is co-sponsored by the Washington College Summer Institute and the University of Maryland Center for Environmental Science (UMCES).

This program offers attendees an opportunity to study the Chesapeake's unique ecosystem aboard the research vessel *Aquarius*, cruise and learn aboard the *Maryland Independence*, search for Native American relics, watch birds and other wildlife, enjoy informative lectures, gourmet meals, skipjack rides, music, dancing, historic tours, painting, kayaking, golf and tennis.

Participants can register for the entire program, or for the sessions that most interest them. Registration is limited, however, so sign up early. For more information or to receive a brochure, contact: Ann Wilmer Hoon, Washington College Summer Institute, 300 Washington Avenue, Chestertown, Maryland 21620, phone (410) 778-7272.

## June 25-27 — Marine Aquaculture



Stamford, Connecticut. "Marine Aquaculture: Emerging Technologies and Global Opportunities" is a workshop sponsored by the Connecticut Sea Grant College Program and the

University of Connecticut Biotechnology Center on new technologies and species for the evolving marine aquaculture industry.

The program will feature invited experts from the international community and the United States, who will participate in four technical sessions. These include systems engineering for marine aquaculture, biotechnology for production enhancement, new species and niche markets and industry case studies.

To register for the conference, which costs \$125, contact Connecticut Sea Grant at (860) 405-9127.

**Maryland Marine Notes (current and back issues since 1995) is also available on the web at <http://www.mdsg.umd.edu/MDSG/Communications/MarineNotes>**



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