

University of Maryland Center for Environmental Science

HISTORIC HIGHLIGHTS

The University of Maryland Center for Environmental Science (UMCES) has been working to solve the problems that face our natural environment and educating the scientists of tomorrow for more than 90 years.

In 1925, [Dr. Reginald Truitt](#) founded the Chesapeake Biological Laboratory in Solomons, an out-growth of his research into managing the Bay's fisheries to better understand factors causing a significant decrease in oyster abundance in the Chesapeake Bay.

Since the 1930s, UMCES researchers have been [tracking changes in Chesapeake Bay water quality](#), including daily measurements from the pier in the Patuxent River. This type of long-term data collection and analysis is critical to improving our understanding of our natural world and helping us better understand how it is changing.

Since the 1950s and 1960s, UMCES scientists have been [tracking the population of blue crabs and striped bass](#). The Chesapeake Biological Laboratory is recognized for its fundamental research on life cycles, ecology, and taxonomy of Chesapeake fish populations and pioneering work on the links between estuarine circulation and fish reproduction.

In 1962, the [Appalachian Laboratory](#) was founded in the mountains of western Maryland at the headwaters of the Chesapeake Bay watershed. Faculty there study the effects of land-use change on the freshwater and terrestrial ecosystems of the region, how they function in the Chesapeake Bay watershed, and how human activity may influence their health and sustainability.

In the 1970s, [UMCES scientists made the initial discovery that the Bay was suffering from an excess of nutrients](#), particularly nitrogen and phosphorus, that caused an increase in algae blooms that killed off seagrasses and caused 'dead zones.' This led to a multi-state commitment to reduce nutrient inputs and evolved into a cornerstone issue for the Chesapeake Bay Program

Since 1972 the [Horn Point Laboratory](#), along the Choptank River on the Eastern Shore, has advanced society's understanding of the world's estuarine and ocean ecosystems. Its faculty are widely respected for their interdisciplinary programs in oceanography, water quality, restoration of sea grasses, marshes and shellfish and for expertise in ecosystem modeling.



In 1973, the Appalachian Laboratory, the Chesapeake Bay Laboratory, and the Horn Point Laboratory became the [University of Maryland Center for Environmental Science](#) as we know it today. UMCES was charged with a unique state-directed mandate to “conduct a comprehensive program to develop and apply predictive ecology for Maryland to the improvement and preservation of the physical environment.”

The [oyster hatchery](#) opened in 1974 at Horn Point. One of the largest oyster hatcheries on the East Coast, it produces oyster larvae for use in research, restoration, and educational projects. State-of-the-art advances have led to record-breaking numbers of spat-on-shell being used to help restore the Bay.

In 1981, UMCES’ first student graduated from the [Marine Estuarine Environmental Studies](#) program, the first in a long line of master’s and doctoral students to be trained side-by-side with world-renowned scientists to be the next generation of environmental stewards.

Since the 1980s, UMCES scientists have [studying Maryland’s stream ecosystems](#), including the impact of mining on stream health the sustainability of brook trout.

In 2002, the [Integration and Application Network](#) forms to assess progress on Chesapeake Bay restoration and update citizens on progress in the form of annual report cards and reports.

In 2009, UMCES launched a state-of-the-art [research vessel Rachel Carson](#) specifically designed to help understand and monitor the health of the Chesapeake Bay and its rivers.

In 2011, UMCES scientists joined researchers from the University of Maryland Baltimore County and the University of Maryland Baltimore to create the [Institute of Marine and Environmental Technology \(IMET\)](#) in Baltimore. Scientists are engaged in cutting-edge research in microbiology, molecular genetic analysis and biotechnology, including alternative energy and sustainable aquaculture.

In 2014, UMCES began officially [awarding joint degrees](#) with the University of Maryland College Park. Graduate students go on to successful careers in government agencies, academic institutions and non-governmental organizations.

