

Deadline looms for decision on introducing ariakensis oysters

By Karl Blankenship

Bay state officials are rapidly approaching their "decision point" about the potential introduction of a nonnative oyster into the Bay, but they stress that the "decision" may simply be that more research is needed.

That decision could come in March, which is the date the states of Maryland and Virginia have set for concluding work on a draft environmental impact statement examining the potential introduction of a reproducing population of *Crassostrea ariakensis* in the Bay as well as seven alternatives.

The aggressive timetable has raised objections among scientists, federal agencies and other states who say it will take years of research before it's possible to predict if the fast-growing, disease-resistant Asian oyster will be beneficial or harmful to the Bay.

In October, Maryland Gov. Robert Ehrlich wrote a controversial letter urging EPA Administrator Mike Leavitt to help rein in scientists and federal agencies, saying, "I do not believe that such delays are necessary and seek your assistance in seeing that the process moves forward in a timely manner."

But Maryland officials insist that they have not made a predetermined decision for the ongoing environmental review, and say critics may have underestimated how much information may be available in February from ongoing research.

"One of the things we are a little bothered about is that people are claiming we have prejudged what we are going to do," said Pete Jensen, deputy associate secretary of Maryland's Department of Natural Resources. "In fact, they are prejudging the outcome of what will be known in March."

To alleviate concerns, state officials recently named a panel of highly respected oyster scientists who will review all of the information available, probably in February, and offer advice about whether it is adequate for making a decision regarding an introduction of *C. ariakensis*.

"We want to assure the general public, as well as the scientific community, of our intent and where we stand on the issue of oysters in Maryland," Maryland DNR Secretary Ron Franks said in a statement. "We've said all along that this is an open process, and creating a panel like this validates our efforts and demonstrates the integrity of our process. As always, any decision will be based on sound science and what is in the best interests of the Bay and those who depend on it."

Jensen defended the tight time frame established by the states, saying it was needed to keep research and the decision-making progress from stalling. "If you don't have a schedule to go somewhere, or a road map, you will never get there," he said. "So we set this up based on what we think we will have in hand in March. Clearly, the decision might be that we don't have enough information, and we need to do more."

Some federal officials have acknowledged that the aggressive timetable likely helped to secure additional funding from Congress to support research related to *C. ariakensis*. The National Atmospheric and Oceanic Administration's Chesapeake Bay Office recently awarded \$2 million in research grants, and Congress in November appropriated an additional \$2 million for the coming year.

Interest has grown in *C. ariakensis* because tests conducted with sterile oysters have shown that it grows fast and resists diseases that have contributed to the decline of the native *C. virginica*. Although the native species has been the target of increased restoration efforts in recent years, scientists say it's too early to tell whether they will be successful. Meanwhile, harvests are at an all-time low, and the loss of the oysters' filtering ability is thought to have contributed to the decline of the Bay's water

quality.

Recent computer modeling by the Bay Program suggests that a larger oyster population would not replace the need to make huge nutrient reductions throughout the watershed to reduce the Bay's chronic summertime low oxygen conditions. But the model does indicate that oysters could give a substantial boost to underwater grass bed restoration in many areas by helping to clear the water.

"We believe the time has come when we've got to make a decision about what we are going to do about restoring oysters, native or nonnative, or a combination," Jensen said. "We just can't go on wringing our hands about the decline of the oysters. It's too important, first ecologically, and if there is an economic benefit to follow, that would be great."

In addition to evaluating a potential introduction, the environmental impact statement is examining other alternatives, such as ending oyster harvests in the Bay, stepping up native oyster restoration efforts, limiting *C. ariakensis* use to aquaculture using sterile oysters, or promoting increased aquaculture with native oysters.

Nonetheless, scientists say even fundamental questions about *C. ariakensis* remain unknown, such as whether it builds reefs like the native species. It has also proven to be susceptible to disease in North Carolina experiments, and there are concerns that its thinner shell is not suitable for the Bay.

Further, they say it may be difficult to complete a thorough analysis of alternatives to an introduction by March. "The work under way does not adequately address our other alternatives," said Jamie King, a biologist with NOAA's Chesapeake Bay Office. "You may have an environmental impact statement that has very cursory assessments for particular alternatives."

Jensen, though, questioned whether the three to five years of additional research suggested by the Bay Program's Scientific and Technical Advisory Committee and federal agency officials was needed before any decision was made. He said threshold questions—such as whether the oyster would harm the Bay through the introduction of new diseases—could be answered in less time.

Larry Simns, president of the Maryland Watermen's Association, said issues that have been raised, such as the thinner shells of *C. ariakensis* which may make them more susceptible to predators and limit the oyster's marketability, should not preclude its use in the Bay. "You still will have an oyster that is going to filter the Bay," he said. "If you want to filter water, you've got to have something that will live and reproduce."

But he said he does not expect a final decision in March. "The sooner the better, but I want a good decision. I don't want them to ignore anything just to get a decision. I want them to do it right."

A major question is who will make a final decision about introducing the oyster. Maryland and Virginia officials have said it is a state issue, while EPA officials have suggested they may have power under the Clean Water Act to regulate an introduction.

That's important because in a normal environmental impact review process, a "record of decision" is made by the lead agencies making the proposal. In this case, that is Maryland, Virginia and the the U.S. Army Corps of Engineers. Typically, a record of decision is also submitted to "cooperating agencies" for their approval. The cooperating agencies in this case are NOAA, the EPA and the U.S. Fish and Wildlife Service.

Jensen said the decision would be written by the states and submitted to the federal agencies for review, but not approval. "Given it is a state decision, I don't think we would be seeking their approval or veto," he said. "But certainly, we would be asking their advice when, and if, we get to that point."

Jensen said Maryland would not make a unilateral decision about an introduction, saying "it will be a joint decision." Virginia Secretary of Natural Resources Tayloe Murphy has supported the aggressive time frame, but he has also publicly stated that he doubts enough information will be available by March to go forward with an introduction.

Meanwhile, criticism of an early decision was mounting. Senior fish and wildlife agency officials from New Jersey and Delaware wrote to the Atlantic States Fisheries Management Committee in December objecting to any effort to introduce the oyster until adequate research is completed. In a joint position statement, they called *C. ariakensis* "a virtual unknown" and said "no single state has the right to impose the introduction of an exotic oyster on neighboring jurisdictions." They said public policy issues with interstate ramifications "call for overriding federal or regional approval," and urged ASMFC to "play a more active role in this matter."

ASMFC includes members from all East Coast states, NOAA and the USFWS, and is responsible for managing migratory species along the coast, although it does not have clear authority over a species introduction.

U.S. Rep. Wayne Gilchrest said after a Dec. 13 hearing on Chesapeake Bay issues that he believes Ehrlich, a fellow Republican, will be persuaded to hold off on nonnative oysters because of "the enormous pressure of all of us standing there saying, 'No.' They can't make a decision in February. How would the state move forward, with the scientific community walking away?"

If a final decision is not ready in March, Jensen said he anticipated a new time frame would be established to keep the process moving. He said the DNR has additional funds to address any specific research issues that arise. "If there are some things missing, we are prepared to fund them right away."

Oyster Panel

Maryland and Virginia officials named a seven-member panel to review research results available about *Crassostrea ariakensis*, and to offer advice as to whether information to make a decision about an introduction is adequate and, if not, indicate what work is still needed.

The chair of the panel is Brian Rothschild, director of the University of Massachusetts School for Marine Science and Technology, and a former faculty member of the University of Maryland's Center for Environmental Science's Chesapeake Biological Laboratory, where he co-authored several papers on oysters in the Bay.

Other members include:

- James Anderson, Professor of Marine Resource Economics, Department of Environment and Natural Resource Economics, University of Rhode Island
- Maurice Heral, General Scientific Director of the French Research Institute for Exploitation of the Sea
- Eric Powell, Director of the Haskin Shellfish Research Laboratory, Institute for Marine and Coastal Sciences, Rutgers University
- Mike Roman, Professor and Director, Horn Point Laboratory, University of Maryland Center for Environmental Science
- Roger L. Mann, Professor of Marine Science, Virginia Institute of Marine Science
- Mark Berrigan, Chief of the Bureau of Aquaculture Development, Division of Aquaculture, Florida Department of Agriculture and Consumer Services

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