

Non-native Oysters in the Chesapeake Bay

Comprehension Questions (for use with *Non-native Oysters in the Chesapeake Bay* report brief):

1. Why are people concerned about the native oysters in the Chesapeake Bay?
2. What are two arguments in support of the introduction of the Suminoe oyster in the Chesapeake Bay? What are two arguments against this idea?
3. The National Academies Committee on Non-Native Oysters in the Chesapeake Bay says in this report that the Bay has been in decline for at least a century due to “multiple stresses.” The Committee thinks it unlikely that a “quick fix” like introducing Suminoe oysters will solve all the Bay’s problems. Why do you think the Committee considered it important to express this opinion in its report?
4. Why did the National Academies undertake a study of Suminoe oysters? What did their study evaluate?

Answer Key

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Comprehension Questions Answer Key (for use with *Non-native Oysters in the Chesapeake Bay* report brief):

1. Why are people concerned about the native oysters in the Chesapeake Bay? (Generalize) [*anno: The numbers of native oysters in the Bay have dramatically declined over the last century. This has hurt the oyster industry and the Bay environment.*]
2. What are two arguments in support of the introduction of the Suminoe oyster in the Chesapeake Bay? What are two arguments against this idea? (Synthesize) [*annos: The Suminoe oyster is not as susceptible to the diseases that have impeded the recovery of the native oyster and could be used to support the oyster industry in Chesapeake Bay. If the Suminoe oyster became abundant, it could improve water clarity in the Bay. Not enough is known about the Suminoe oyster to determine how well it will fare in environments like the Chesapeake Bay. The Suminoe oysters could become a nuisance species that displaces the native oysters or could carry harmful “hitchhiker” species.*]
3. The National Academies Committee on Non-Native Oysters in the Chesapeake Bay says in this report that the Bay has been in decline for at least a century due to “multiple stresses.” The Committee thinks it unlikely that a “quick fix” like introducing Suminoe oysters will solve all the Bay’s problems. Why do you think the Committee considered it important to express this opinion in its report? (Analyze) [*anno: Possible response: The Committee wanted to clarify that there are additional problems in the Bay beyond the focus of this report, and that restoring oyster populations is not going to be sufficient to stop the Bay’s decline.*]
4. Why did the National Academies undertake a study of Suminoe oysters? What did their study evaluate? (Identify) [*annos: State and federal agencies in the Chesapeake Bay program disagreed on whether to introduce Suminoe oysters into the Bay. The study evaluated three management options: no use of non-native oyster species; aquaculture of sterilized non-native oysters; and introduction of reproductive non-native oysters.*]

Comprehension Questions Answer Key (for use with *Non-native Oysters in the Chesapeake Bay* report brief), continued:

5. Which option did the National Academies recommend? Why? (Summarize) [*annos: The National Academies recommended limited aquaculture of sterilized non-native oysters. This would prevent the unintentional release of reproductive Suminoe oysters into the Bay and avoid the possibility that the Suminoe oysters might become a nuisance species. This option also would give researchers more time to study the species in the Bay's environment.*]

6. The report says that the Suminoe oyster is likely to compete favorably with native oysters in the Chesapeake Bay. It also says that where the Suminoe has been introduced in the United States, it has not become an invasive species. Why, then, does the report suggest that the Suminoe be studied further in the specific environment of the Chesapeake Bay? (Explain) [*anno: Possible response: The report says that the ecosystem and conditions under which a species is introduced can play an important role in how it spreads. The conditions in other environments in the United States may not be the same as those in the Chesapeake Bay, and scientists need to test specifically how the Suminoe will behave in the Bay and in interactions with C. Virginia.*]

7. Which state, Maryland or Virginia, is more likely to accept and adopt the Committee's recommended management option of Suminoe oysters in the Bay? Why? (Predict) [*anno: Virginia, because in the 1990s, more than 60% of that state's oyster harvest came from private aquaculture beds. Virginia oystermen have traditionally grown oysters on privately leased, state-owned beds but Maryland does not have the same provisions for private leasing of oyster beds. During the same time period, less than 4% of Maryland's oysters came from private beds. The Committee recommends introducing Suminoe oysters in managed aquaculture beds.*]

8. Why does the Committee recommend at the end of the report that a new regulatory body, like the Chesapeake Bay Program, be considered to oversee the introduction of Suminoe oysters in the Bay? (Explain) [*anno: Possible response: Introductions of non-native species are not regulated by the federal government. They are regulated by a patchwork of local, state, regional, federal, and international agreements. The Committee sees the Chesapeake Bay Program as a model for regional oversight of activities that affect areas across state and local boundaries.*]