Researchers assess how sea level rise will affect the health of freshwater mussels and other salt-sensitive species

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Investigators recently studied several species of freshwater mussels, which are endangered and are especially sensitive to changes in water

quality, to explore the ramifications of sea-level rise in coastal rivers. The research published in *Environmental Toxicology and Chemistry* determined the concentration of sea salt that would harm the viability of young mussels.

The study focused on the ecosystems along the southeastern US coast, where sea-level measurements have indicated rising waters from 2–6mm per year. By detailing the levels in which salt water is toxic to mussels at various life stages, the results can provide guidance for conservation programs that consider climate-induced sea level rise and saltwater intrusion that will affect numerous salt-sensitive species.

"Climate change represents a serious threat to our aquatic ecosystems worldwide and the organisms that live there," said corresponding author Joseph McIver, MS, of North Carolina State University. "Protecting and conserving our already highly imperiled freshwater mussels is of paramount importance and our research on the effects of salinity and sea level rise will hopefully contribute valuable information toward these goals."

More information: Joseph K. McIver II et al, Assessing the Toxicity of Sea Salt to Early Life Stages of Freshwater Mussels: Implications for Sea Level Rise in Coastal Rivers, *Environmental Toxicology and Chemistry* (2023). DOI: 10.1002/etc.5731

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