

## **How freshwater trees respond to salt stress: implications for management**

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Estuarine wetlands are increasingly being affected by saltwater intrusion, caused mainly by climate change and human alteration of estuaries. As saltwater reaches these areas, it can lead to vegetation mortality with cascading negative effects on the whole system. To help managers safeguard estuarine wetlands we need to understand how saltwater (and its interaction with other factors) impacts vegetation.

We tested the response of three common wetland trees (willow *Salix alba*, alder *Alnus glutinosa*, and elderberry *Sambucus nigra*) to temporary and continuous saltwater stress under different tidal regimes.

These freshwater species were remarkably resistant to saltwater: two months were required to see the effects of salinity and only continuous high salinity were detrimental for the plants. Rather than completely exclude saltwater from wetlands, increasing species diversity and reducing the time plants are exposed to saltwater might provide a cost-effective method to improve wetland resilience in a saline future.