

Ecotype Hybrids and Ecotype Mixture of *Spartina alterniflora* Loisel. in Coastal China

Authors : Lu Xia, Nasreen Jeelani, Shuqing An

Abstract : *Spartina alterniflora*, a species native to the east coast of North America, is currently the focus of increasing management concern due to its rapid expansion in coastal China. A total of 60 individuals and hundreds of seeds of *S. alterniflora* collected from three states in the United States representing three ecotypes (F-, G- and N-), i. e., Tampa Bay of Florida, Altamaha estuary of Georgia and Morehead City of North Carolina, were introduced into China in 1979 for ecological engineering purposes. To better understand the plant traits associated with the success of invasion, we examined distribution of ecotype hybrids and ecotype mixtures of the species in China. We collected and analyzed 144 samples from seven populations throughout coastal China (21.6°-38.6°N; 109.7°-121.8°E) using amplified fragment length polymorphisms (AFLP) markers. Results of assignment show that both ecotype hybrids and ecotype mixtures exist in coastal China, especially in southern populations. Therefore, the species' success in coastal China may be attributable largely to the coexistence of various ecotype hybrids and ecotype mixtures.

Keywords : ecotype hybrids, ecotype mixtures, *Spartina alterniflora*, coastal China

Conference Title : ICWES 2015 : International Conference on Water and Environmental Sciences

Conference Location : Vancouver, Canada

Conference Dates : August 06-07, 2015