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# Plant genome size influences stress tolerance of invasive and native plants via plasticity

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**Abstract.** Plant genome size influences the functional relationships between cellular and whole-plant physiology, but we know little about its importance to plant tolerance of environmental stressors and how it contributes to range limits and invasion success. We used native and invasive lineages of a wetland plant to provide the first experimental test of the Large Genome Constraint Hypothesis (LGCH)—that plants with large genomes are less tolerant of environmental stress and less plastic under stress gradients than