Biological Control as a Tool in Restoration and Conservation Programs and for Reducing Wildfire Risk

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Abstract

Non-native plant invasion in western North America riparian systems has caused wide-ranging impacts to ecosystems including reduced wildlife habitat for native species, increased wildfire frequency and intensity, and increased evapotranspiration rates in this arid region. The spatial extent of these invasions makes traditional control and management techniques economically and logistically unfeasible. Programs targeting invasive plant reduction as a key element to restoring critical habitat and reducing impacts to ecosystems should consider biological control as an essential tool in the management of invasive plant populations. We provide examples of how biological control is being implemented in large-scale riparian restoration, conservation, and wildfire management programs in western North America.