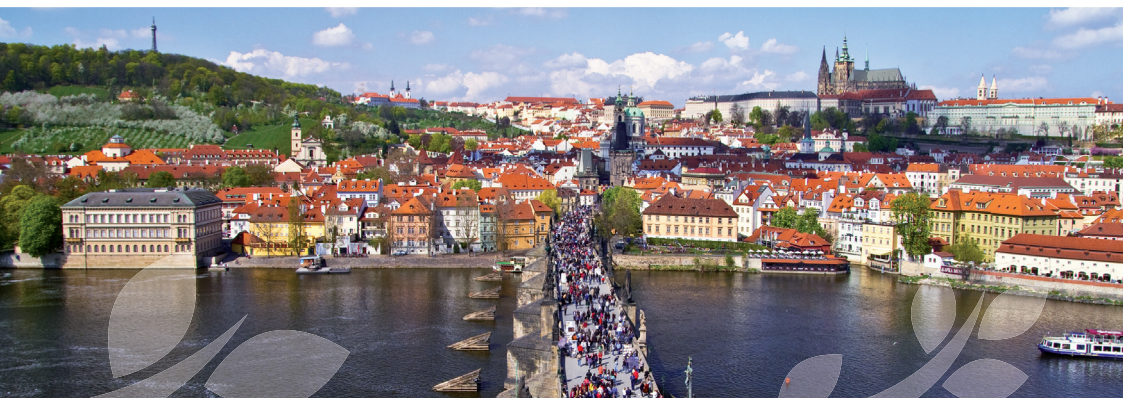




# 7<sup>th</sup> International Weed Science Congress

June 19–25, 2016  
Prague, Czech Republic



*“Weed Science and Management  
to Feed the Planet”*

## Proceedings



Czech Weed  
Research Society



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## Session 39

### WEED MANAGEMENT IN CROPS AND NON-AGRICULTURAL LAND: Invasive Species / Weed Management in Hard Scapes

#### Keynote: Achievements and challenges in South Africa's environmental weed control programme (275)

**Brian W van Wilgen** (Centre for Invasion Biology, Stellenbosch, South Africa),

**Andrew M Wannenburgh** (Working for Water, Cape Town, South Africa)

South Africa's environmental weed control programme, Working for Water, simultaneously promotes conservation and poverty relief through environmental weed control projects. We trace the programme's history and review the factors that led to its success. These included a sound scientific grounding, a clear demonstration that the weeds are a serious threat to vital and scarce water resources, and a unique opportunity presented by South Africa's transition to democratic government. The programme built on historical precedents for control, and was able to capitalise on a core of dedicated managers that delivered a good-news story, leading to increased funding. The programme has facilitated advances in biological control, raised levels of awareness, enacted legislation, and promoted research. However, it has only treated a relatively small proportion of the estimated invaded area, and assessments of progress towards ecosystem-scale outcomes cannot be made as they are not monitored. The need to operate in a bureaucratic environment, an emphasis on job-creation and relative neglect of environmental goals, and high levels of political interference are significant obstacles to progress.

**Keywords:** Poverty relief, water conservation, biocontrol, legislation, research

#### Restoration of areas infested by *Ailanthus altissima* in the Alta Murgia National Park: experience within a LIFE project (730)

**Francesca Casella** (CNR – National Research Council, Bari, Italy), **Maurizio Vurro** (CNR – National Research Council, Bari, Italy), **Angela Boari** (CNR – National Research Council, Bari, Italy)

The spread of invasive alien species threatens the conservation of natural ecosystems, being the second leading cause of biodiversity loss. *Ailanthus altissima* (Mill.) Swingle (tree of heaven) is one of the most damaging invasive alien plant species, and the most important one within the Alta Murgia National Park, the second largest park in Europe, containing a great wealth of biodiversity. The species is highly present throughout the park, both in anthropic places such as antique manors and sheepfolds, where farmers intentionally planted *A. altissima* trees for shade, and in natural habitats such as grasslands and rocky soils, fields, woods edges, dry stone walls and roadsides, where they spontaneously grew. The „LIFE Alta Murgia“ project, started in 2013, was funded within the European LIFE+ Framework. Its main objective is to eradicate *A. altissima* from the Alta Murgia National Park. Many large areas have been restored by using an eco-friendly and sustainable strategy for tree of heaven control based on stem application techniques able to minimize herbicide use and reduce risks for health and environment. For broad high plant density patches, best results were obtained with one winter treatment with glyphosate followed by one summer completion treatment. Stem applications provided good control with low rates of herbicide and offered many advantages: no drift, no off-target effects, selectivity, minimal need for equipment, the possibility of treatments in urban and natural areas. An official protocol for tree of heaven management will be proposed.

**Keywords:** Natural areas, sustainable chemical control, invasive alien species, LIFE project, *ailanthus altissima*

