

Pathogens as potential classical biological control agents for alligator weed, *Alternanthera philoxeroides*

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Alligator weed (*Alternanthera philoxeroides*) is an evergreen species native of South America. It is an invasive plant in Australia, USA, China and other countries. To identify possible candidates for the biological control of this plant, surveys of fungal pathogens were carried out in Buenos Aires and northwestern and northeastern provinces in Argentina between November 2004 and May 2005. Thirty sites were surveyed, and at least 12 fungal species were collected. *Colletotrichum orbiculare* and *Colletotrichum* cf. *capsici*, associated with stem lesions and leaf spots, were widely distributed and showed a high incidence and impact in the plant populations. *Fusarium* sp., associated with concentric large leaf spots, also had high incidence. The white rust *Albugo bliti* was collected on *A. philoxeroides* and on the closely related *Alternanthera aquatica*, but its impact seems to be limited. *Phoma* sp., *Phomopsis* sp. and other fungi have also been identified. The fungi likely to be the most promising as candidates for classical biological control of alligator weed are *Colletotrichum orbiculare*, *Colletotrichum capsici* and *Fusarium* sp.

A survey for fungal pathogens with potential for biocontrol of exotic woody Fabaceae in Argentina

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Several exotic woody plants in the Fabaceae are aggressive invaders in native ecosystems in Argentina, especially in the Pampas. They transform local communities, replace native plant species and cause economic damage. It is assumed that a lack of natural enemies contributes to the success of these invaders. As a first step towards their eventual biocontrol, we studied the fungal pathogens naturally associated with these exotic plants in the southern Pampas region. A very aggressive dieback was observed on *Spartium junceum*, *Acacia baileyana*, *Acacia mearnsii* and less so on *Genista monspessulana*. A *Phomopsis* sp. was always found associated with this dieback. *Fusarium sacchari* var. *subglutinans* was also isolated from *S. junceum* plants showing dieback. Another *Fusarium* sp. was isolated from *A. mearnsii* plants with similar symptoms. The rust *Uromyces genistae-tinctoriae* (uredinia only), frequently infected with the hyperparasite *Sphaerellopsis filum*, was identified on *G. monspessulana*. The powdery mildew fungus *Erysiphe rayssiae* (anamorph only) was observed on *S. junceum*, where it causes some damage on re-growth. Further studies are necessary to determine whether some of these naturally occurring pathosystems could be manipulated to help control these exotic plant invaders, e. g. via the inoculative approach.