Novel preliminary host-specificity testing of 
*Endophyllum osteospermi* (Uredinales)

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*Chrysanthemoides monilifera* ssp. *monilifera* (boneseed), indigenous to South Africa, is a serious invader of native vegetation in southeastern Australia. The rust fungus, *Endophyllum osteospermi*, causes witches’ brooms on bone seed in South Africa but has a long latent period, typically between 6 and 24 months between infection and the initiation of the witches’ brooms. This long latent period makes the logistics of doing traditional host-specificity testing, in which all test plant species are inoculated and observed for symptom development, unfeasible for this rust fungus. Germination of aecidioid teliospores and penetration by basidiospores were observed on the surface of excised leaves of 36 test plant species at 4 days after inoculation and were compared to that on bone seed. Germinating aecidioid teliospores aborted on 14 test plant species, while no penetration was attempted on further 14 test plant species. Penetration only occurred, or was attempted, on eight of the 36 test plant species in addition to boneseed. Inoculating whole plants of nine selected test plant species confirmed the above results. Therefore, only the test plant species in which penetration occurred, or at least was attempted, need to undergo comprehensive host-specificity testing.

Potential of *Ustilago sporoboli-indici* for biological control of five invasive *Sporobolus* grasses in Australia

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*Sporobolus pyramidalis*, *Sporobolus africanus*, *Sporobolus natalensis*, *Sporobolus fertilis* and *Sporobolus jacquemontii*, known collectively as the weedy sporobolus grasses, are exotic weeds causing serious economic loss in grazing areas along Australia’s entire eastern coast. In one of the first attempts to provide biological control for a grass, a smut fungus, *Ustilago sporoboli-indici*, has been found to attack the leaves and flowering parts of *S. pyramidalis*, *S. africanus* and *S. natalensis* in South Africa. The potential of this pathogen as a classical biological control agent for all five weedy *Sporobolus* spp. found in Australia was evaluated in the glasshouse. The smut attacked *S. pyramidalis*, *S. africanus*, *S. natalensis* and *S. fertilis* but not the New World *S. jacquemontii*. Host range trials with ten native Australian *Sporobolus* spp. were also conducted. The extent of damage caused by the smut fungus to two weedy *Sporobolus* spp. (*S. fertilis* and *S. natalensis*) and two native Australian *Sporobolus* spp. (*S. creber* and *S. elongatus*) under glasshouse conditions was determined by measuring biomass and effects on flower and seed formation. The prospects for the smut as a biocontrol agent are assessed.