

The phytophagous insects associated with spotted knapweed (*Centaurea maculosa* Lam.) in northeast Romania

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Spotted knapweed is a Eurasian species that has become a problem weed, especially in mountain rangelands in North America, where approximately 7 million acres are invaded by this plant. In the second half of the past century, studies have been conducted with the purpose to introduce several natural enemies from the region of origin for the biological control of spotted knapweed. Until the present, 16 biological control agents have been introduced, of which 13 were insect species. In studies conducted in 2005 and 2006 at multiple sites in northeast of Romania, 20 insect species were obtained, belonging to the orders Lepidoptera (seven), Diptera-Brachicera (six), Coleoptera (five) and Hymenoptera-Cinipidae (two). There is an important role for species that attack new shoots in the reduction of spotted knapweed populations such as *Apion* sp. (Curculionidae), *Napomyza lateralis* (Fallen) (Diptera-Agromizidae) and Tephritidae species (Diptera) and some lepidopteran species.

Parkinsonia dieback: a new association with potential for biological control

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A case study is being carried out investigating the effect of a native fungal pathogen attacking an invasive woody weed (*Parkinsonia aculeata*) in rangeland Australia. This is a new association causing impact on parkinsonia that does not appear to be occurring in its native range. Observations have shown that this dieback is capable of killing whole stands of parkinsonia in small pockets across the country. Field transects in a naturally occurring dieback site are being monitored to investigate the movement of this disease through a stand of adult parkinsonia trees. Field and glasshouse trials are being conducted to observe the effect of isolates taken from diseased plants. Trials so far indicate that two of these isolates are capable of causing disease in healthy adult plants when applied to a stem wound. Six months after inoculation, plants have been observed with large spreading stem lesions and significant reductions in plant vigour. These results are promising with potential for biological control opportunities for parkinsonia.