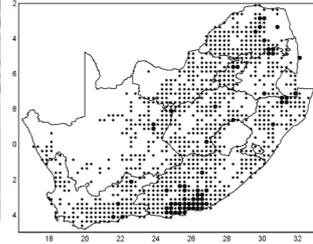


ARC-PPRI FACT SHEETS ON INVASIVE ALIEN PLANTS
AND THEIR CONTROL IN SOUTH AFRICA

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The cactus moth, *Cactoblastis cactorum*, is native to various countries in South America, and was released as a biological control agent on prickly pear (*Opuntia ficus indica*) in South Africa during the early 1930s. In Australia, this moth played a major role in controlling what is regarded as the world's worst weed problem, *Opuntia stricta*. In South Africa, the cactus moth feeds on Australian pest pear (*Opuntia stricta*), as well as a variety of other cactus weeds.

DESCRIPTION

Adult moths are fairly inconspicuous, with mottled grey/brown wings (i). They are active at night, and are often attracted to electric light. During the day, they shelter on the lower parts of the plants and do not fly readily—even when disturbed.



LIFE CYCLE

In spring (Sept-Oct) and in autumn (Feb-Mar) females lay eggs in a kind of eggstick (ii), which is attached to a spine or other projecting part of the plant. Each eggstick contains up to 120 cream-coloured eggs which darken with age and, depending on whether they have been laid in spring or in autumn, hatch within 33-50 days. The larvae from a particular eggstick congregate and tunnel into the cactus plant from a communal entry point. Depending on the season, within two to four months the larvae pupate in silken cocoons under debris or stones on the ground, or in crevices on the plant. The adults emerge within 60-73 days, and females begin laying eggs the day after emergence.



FEEDING DAMAGE

Once they have tunnelled into the leafpad (cladode), the larvae consume the interior tissue (iii), leaving little more than the epidermis which eventually dries out. As soon as the flesh from one cladode has been consumed, the larvae move on to another cladode. It is easy to tell when larvae are present because they discharge frass (faeces) (iv) from affected leafpads, and the leafpads may also ooze a slimy, green fluid. In addition to the damage they create, the larvae also provide opportunity for microbial pathogens to enter the plant, and this may lead to secondary infections.



IMPACT ON AUSTRALIAN PEST PEAR

Although the moth has become established on all the cactus species mentioned above, it is not an effective biocontrol agent because it cannot kill off the woody stems of tree cacti such as prickly pear. While younger plants may be severely damaged, any remaining woody stems will merely regrow. Also, the mortality rate of the insects is high since they are preyed on at all stages of their life cycle by ants, birds, baboons and other predators. While the cactus moth is not an effective biocontrol method on its own, it can supplement the effects of cochineal, and is more easily distributed to isolated cactus infestations.



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