



**BALLOON VINE**, *Cardiospermum grandiflorum* Sz. (Sapindaceae), originally from South America, has become naturalized in tropical Africa, Asia, Australia and America. Balloon vine is a perennial, slightly woody climber with widely spaced bipinnate leaves and extensive tendrils (i). It flowers throughout the year, and each yellow or white flower (i) produces a membranous, inflated fruit or capsule containing three angled chambers. Each fruit capsule is about 60mm long and green in colour, but changes to light brown when fully matured (ii). The plant re-grows from root fragments; furthermore, fruit capsules with seeds are carried by wind and float freely on water, dispersing the plant along waterways.



### THE PROBLEM

Balloon vine is highly invasive along the forest margins, watercourses and urban open spaces in the subtropical regions of South Africa. Balloon vine is particularly abundant in the humid coast of KwaZulu-Natal (KZN) where infestations smother the indigenous vegetation (iii & iv), thereby threatening the biodiversity. However, massive infestations of this creeper have also been reported in the eastern low-altitude regions of Limpopo, Mpumalanga and the Eastern Cape during the past 20 years. Mechanical control of *C. grandiflorum* is extremely difficult and costly as dead plant material has to be removed to restore exposure of the understory to sunlight. Chemical control is similarly problematic because of non-target damage to underlying vegetation.



### THE SOLUTION

Biological control is considered the only feasible and sustainable option to curb the invasion of balloon vine in South Africa. Research by ARC-PPRI found that a seed-feeding weevil, *Cissoanthonomus tuberculipennis* Hustache 1939 (Coleoptera: Curculionidae), was sufficiently host-specific and damaging for release against balloon vine in South Africa and, with the approval of the Department of Agriculture, Fisheries and Forestry (DAFF), it is being released throughout the distribution range of the weed. Information on the seed-feeding weevil is contained in a separate fact sheet.



environmental affairs

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