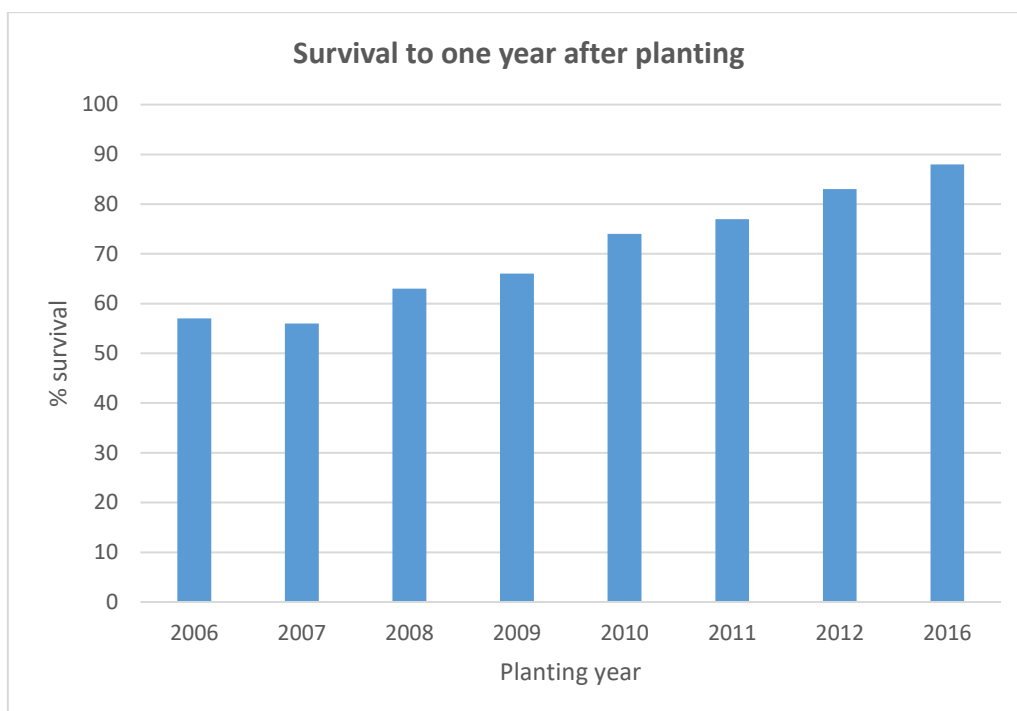


BRIEF REPORT ON REVEGETATING MOUNT PAINTER NATURE RESERVE, ACT: SURVIVAL OF TREE AND SHRUB PLANTINGS, 2005-2016

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Since the early 2000s, several thousand trees and shrubs have been planted on Mount Painter by the ACT Parks and Conservation Service, its contractors, and Friends of Mount Painter. The survival of 3,196 of those planted between 2005 and 2016 inclusive was checked one year after planting. Two thousand, eight hundred and fifty-two of these plants were then monitored annually for up to 10 years. This paper reports results from 2005 to 2017 inclusive, with additional information to 2019 for some plants.

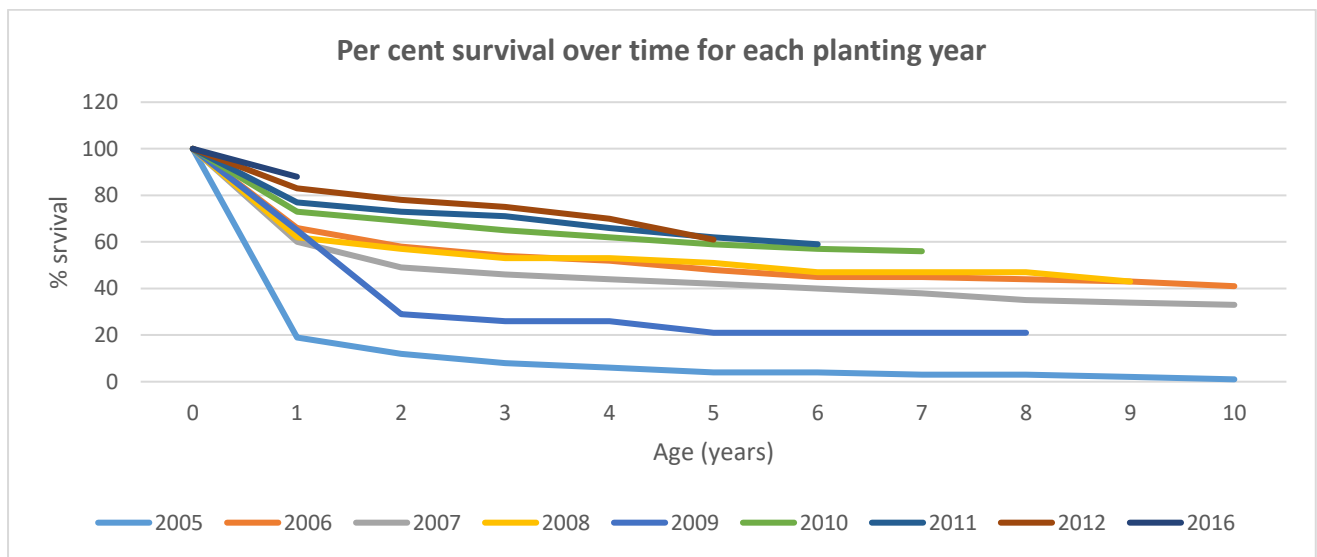
Survival to one year of age. Less than a quarter of tubestock planted in 2005 survived to one year of age. With an improved planting technique and care over the first few years after planting, more survived in later years (56-88 per cent). Tubestock planted during the millennial drought (2006–09) survived less well (56-66 per cent) than those planted in wetter years (2010-12, 2016) when 74-88 per cent survived.



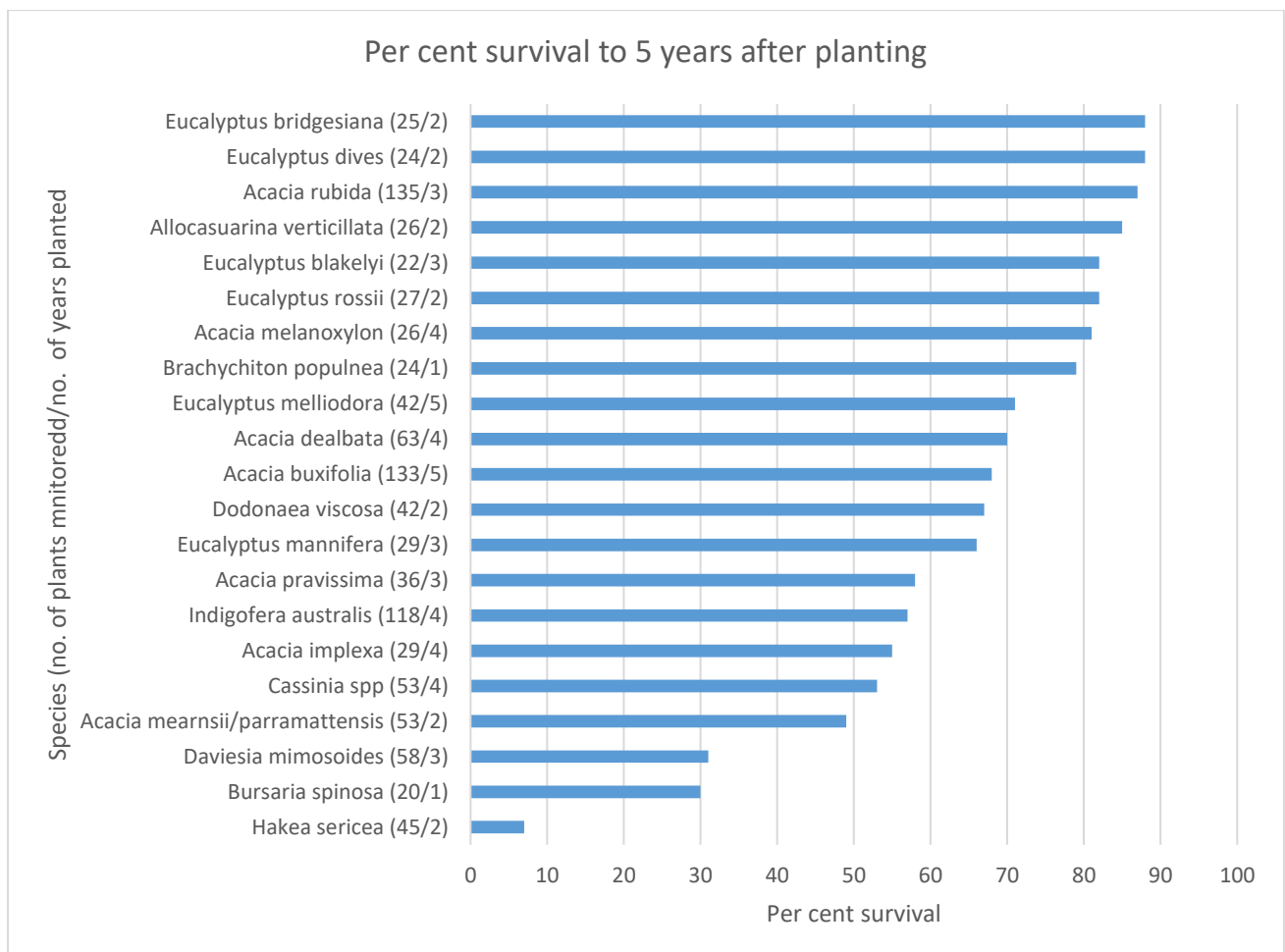
Survival over multiple years. The death rate was highest during the first year of life and then declined slowly over subsequent years. After five years, 41 per cent of the 2006-09 plantings were still alive and 61 per cent of the 2010-12 ones. The overall survival rate to five years for 2006-12 plantings was 49 per cent. Survival to 10 years of age for the 2006-09 plantings was 34 per cent.

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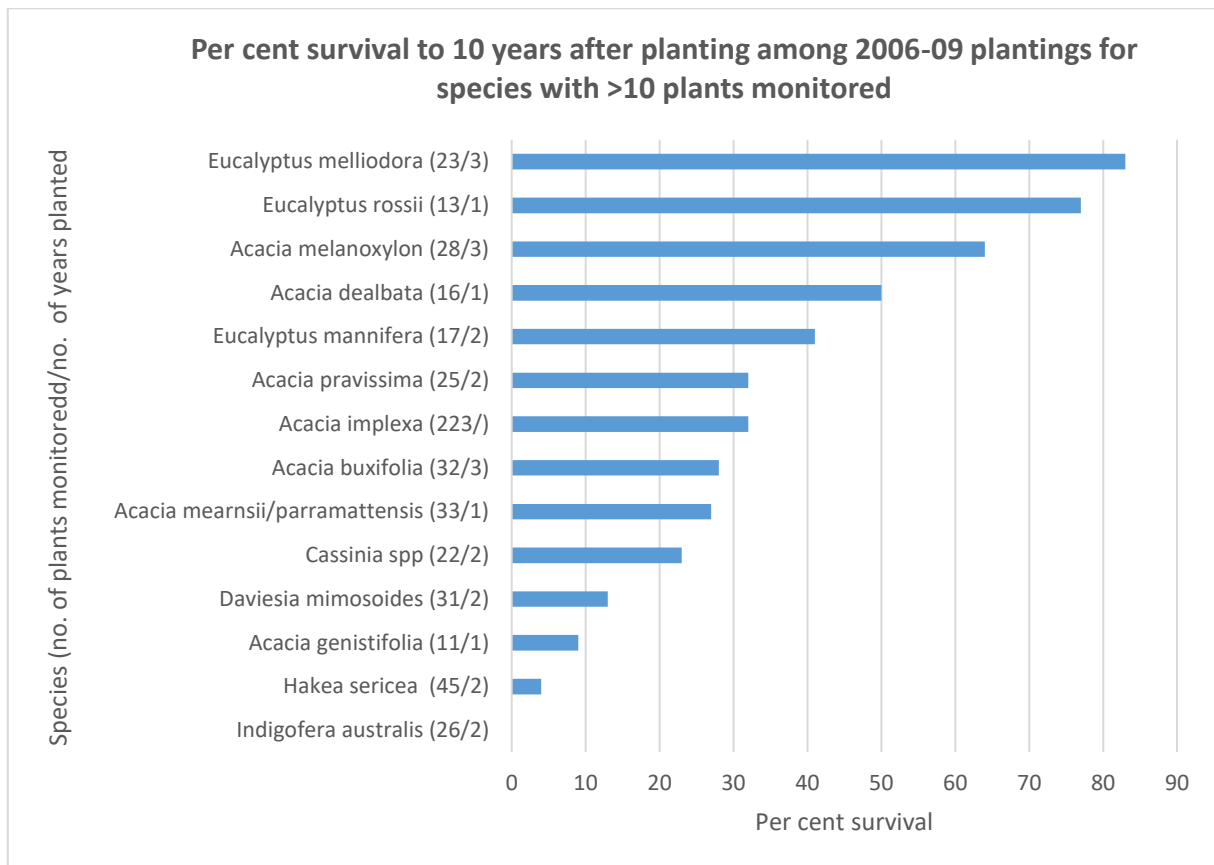
Survival rates over time provide information on how many tubestock to plant for the desired eventual cover.



Survival of individual species and groups of species. Individual species survival to five years of age varied from seven to 88 per cent. Trees performed better than shrubs, with the eucalypts among the better survivors.



A similar pattern is apparent in survival to 10 years of age among the 2006-09 plantings; 68 per cent of the eucalypts survived which is significant for their role in re-establishing an open woodland.



Regeneration from plantings

The hope, long-term, is that there will be regeneration of plants grown from tubestock. So far, little is apparent except for *Dodonaea viscosa*, *Cassinia spp*, and *Hardenbergia violacea* seedlings associated with plantings made before 2010.

Aerial images. From the photos on the next page, it is apparent that many more young trees were growing on the lower western and southern slopes in 2019 than were there in 2002, when the planting program was starting.



Tree density in 2002 (above) and 2019 (below)

