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Experiences with Western Australian eucalypts in a Kent winter

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The vast majority of the *Eucalyptus* species that have spectacular flowers are shrubs or small trees native to Western Australia (WA). Unsurprisingly, given the climates in that State, they are commonly regarded as relatively tender and likely to succumb quickly to the cold and damp conditions of a winter in Britain. Thus, they are not usually viewed as offering much prospect as ornamentals for the UK, even to an enthusiast, and especially not to one lives in north Kent. However, my own observations, and comments from a range of people, suggested that they would not necessarily be impossible to grow, and 12 months of experience with a range of species has convinced me that I should persevere with several.

My garden is on the North Downs in Kent. It is south-facing but exposed, about 80 metres above sea level and 15 km from the North Sea – a part of Kent notorious for heavy snowfalls and cold spells in winter. However, summers tend to be both sunnier and drier than elsewhere in Britain – one result is that there is a small vineyard nearby that has been in existence for 25 years. The winter frosts and snow mean that the climate differs from any location in WA. However, that aside, the climate of the coast of the extreme south-west of WA is not too different, with warm sunny summers and cool, cloudy and damp winters.

Species native to the coast of south-west WA are unlikely to be suited to gardens in Britain. The spectacular red-flowered gum (*Corymbia ficifolia*) clearly falls into this category – the very few reports of this species flowering in the British Isles are all from extremely mild locations. But the species from elsewhere in WA that are grown successfully in gardens on that coast offer more clues as to what might be better-adapted.

Many eucalypts from inland locations in the southern part of WA have modest levels of frost-tolerance. This is well-documented, and is presumably a response to the occurrence of radiation frosts at night in their native habitats. However, the daytime conditions in these habitats are generally sunny, with low winter rainfall and hot, dry summers. Yet some of these species seem to be quite happy in suburban gardens along the coast, and in other locations far to the south and west of their native habitats. Perhaps the most striking of these is *Eucalyptus caesia*, which is native to the wheatbelt east of Perth. The subspecies *magna* is widely-grown throughout the warm temperate parts of Australia as 'Silver Princess', a small tree with pendulous silver-grey stems and foliage, and spectacular red flowers.

I raised seedlings from a range of WA eucalyptus species, and *E. leucoxylon* (a species from South Australia and Victoria that is widely-grown as an ornamental in WA) in 2004. Some were raised for me by a nursery in Portugal, and I brought these to Kent at the end of May. I raised more from seed sown in Kent in May, using the 'bog' method on sunny windowsills. This method was very successful. The plants were transferred to pots containing a free-draining compost (1:1 soil-based ericaceous: perlite) and kept outdoors. They were hand-watered with mains water, which is from the local chalk and hence very 'hard', supplemented with liquid feed formulated for tomatoes. All thrived, and *E. caesia ssp magna* lived up to its reputation for being very vigorous when young.

I put the pots in various locations in the autumn, to get an idea of how they would fare over winter with different degrees of protection. There were three basic types of location: outdoors in open cloches or against walls, within closed but well-ventilated glass cloches, and within a greenhouse with heat to provide frost protection. Most of the winter was quite kind, with minimum temperatures until mid-February falling to only -3.5°C at soil level and within the cloches. Then winter really arrived: we had several snowfalls including 30 cm that lasted for 3 days. Air temperatures dropped below zero every night for two weeks, with the lowest being -7°C . The snow was probably a blessing for the plants under cloches, as the cloches were completely buried and the night temperatures within did not drop below -2°C .

The majority of plants of most species have survived! Of the species held mainly under cloches, all the *E. macrocarpa* (Mottlecah) and one seed source of *E. preissiana* (Bell-fruited mallee) appear totally undamaged. *E. erythrocorys* (Red-cap Gum) suffered some damage in December but is now looking quite happy. Only *E. tetragona* (Tallerack) and *Corymbia calophylla* (Marri) were badly damaged, and it is interesting that both these are predominantly found near the south coast in WA and so may not have encountered selection pressure for frost tolerance.

The majority of the plants outside were larger specimens, 60-80cm tall, mainly *C. calophylla*, *E. caesia ssp magna*, and *E. leucoxylon ssp pruinosa* and *ssp megalocarpa*. The first of these was badly damaged by the end of December, but the other subjects happily endured frosts, and light snow that froze to the leaves, seemingly without damage. The heavier frosts and snow in early March damaged the shoot tips of many of these plants, but the majority of the plants still look in reasonable condition. Overall, *E. caesia* fared better than *E. leucoxylon*, despite some stem breakages caused by snow on the former.

The plants in the greenhouse all survived, as might have been expected. Inevitably, insect pests also thrived best in the greenhouse, although *E. preissiana*, *E. tetragona* and *E. erythrocorys* seem to be immune to the psyllids and aphids inhabiting the shoots of adjacent plants.

What messages might be drawn from these preliminary observations? Without more experience, I will only highlight two possibilities. Firstly, the ease with which *E. caesia* can be grown, its apparent modest hardiness, and

its ability to cope with the cool, damp winters on the south coast of WA, suggest that it may be worth trying this outdoors in milder parts of Britain. Places where *E. leucoxyton* has succeeded and flowered (which include some surprising spots!) would seem to be good possible locations. It will always be a risky subject at best, but success would be very spectacular.

Secondly, the potential for certain species to be grown in Britain in large containers may repay some further investigation. The suitability of certain eucalypts for containers has been noted elsewhere in the world, and a few species appear to initiate flowers while still small. The apparent freedom from insect pests of species in the sub-genus *Eudesmia* (which includes the Red-cap Gum and Tallerack), suggests that this group might be particularly rewarding for growing in containers outside in warm, sunny spots and being over-wintered in a cool conservatory.