

The Montpellier beech, Cheltenham



Chris Chavasse and **Lindsey Mulraine**,
Trees Officers, Cheltenham Borough Council

In 2003, following a routine inspection of trees in the large, prestigious Montpellier Pleasure Garden in the middle of Cheltenham, a *Ganoderma adspersum* fungal fruiting body was identified on a large copper beech. This potential problem was compounded by the fact that there are several weak fork unions between limbs and the trunk at the same approximate height as the *Ganoderma*.

The Montpellier copper beech in 2007, four years after the discovery of a *Ganoderma adspersum* fungal fruiting body.



The tree (then measuring approximately 23m×26m) was planted in 1810, just before the creation of the Gardens, and had been growing unimpeded by any adjacent trees ever since. As the tree had not been subject to any significant pruning in the previous two centuries, it had developed a broadly symmetrical crown (though growth was slightly stronger on the southern side). The tree has been an iconic feature of the landscape in this part of Regency Cheltenham for many years. It could be said that this copper beech provided more public amenity than any other individual tree within the town. Many people would sit and picnic under the broad crown at lunchtimes, practise their Tai Chi in the mornings and evenings and – to trees officers' continuing concern – it was relatively easy for more energetic youths to free climb, at least partially up into the crown!

Because of the visual and cultural importance of the tree, it was decided to get a second opinion from an AA Registered Consultant, Hal Appleyard of ACS Consulting. His brief was to report on the condition of the tree with particular reference to the *Ganoderma*.

With the help of a Resistograph, the condition of the trunk of the tree was found to be comparatively intact, despite its age and maturity, except in an area inwards from the *Ganoderma*. Light reduction of some of the end weight of southerly limbs was undertaken shortly afterwards. A tree officer remained on site during the course of the pruning to field the many questions from members of the public. This seemed to go a long way to clear park users' anxieties and misapprehensions – even if tree surgeons are only using handsaws, the perception is that the tree is being

entirely removed. A press release was also sent to the local newspaper which tried to explain all and to calm possible fears.

In March 2006 a further inspection was undertaken by the same consultant, this time using a Picus Sonic Tomograph. Again, despite the growth of the *Ganoderma* in intervening years it was considered that no further pruning was necessary at this point in time. In anticipation of the ultimate removal of the tree, a *Zelkova serrata* was planted nearby. It was considered that whilst this species has the broad appearance of a beech tree, it might be better able to tolerate future climate change. However, two other young (now approx 5–6m high) beeches were also nestled in amongst several conifers in anticipation of the entire removal of the large beech.

In 2009 the *Ganoderma* was found to measure approximately 450mm wide and 300mm deep. ACS returned to survey the tree again using a Resistograph, testing in the approximate same locations as previously. Decayed wood was now more evident, having progressed toward the surface of the trunk and radiating out from the centre. It became evident that decay was also spreading up and down the trunk away from the *Ganoderma* bracket. This was not evident at the 2003 inspection. An approximate 25% crown reduction (drop crotching where possible) was recommended as well as the relocation of a bench on a path at the periphery of the crown. Due to the compaction of the ground under the canopy, a carpet of composted woodchip was also recommended. It was helpful of the consultant to give recommended timescales for when the work should be undertaken and these were strictly adhered to. As feedback to the consultant, before, during and after photos were taken. Happily, when seen from a distance the broadly symmetrical profile of the tree was retained, whilst up close it was obvious that the tree had had a moderately heavy reduction (for the species concerned). Again, top Cheltenham Borough Council arb contractors (Arbor Tree Care) undertook the work, using handsaws (where possible), and tree officers remained on site to field possible opposition to such pruning. Most members of the public (and there were many!) were content to see the work being undertaken once the reasoning behind it had been emphasised and once it was explained that the alternative was complete removal.

As time rolled by the *Ganoderma* became larger and larger and then several other new *Ganoderma* bodies were also noted around the trunk. The tree showed some marginal loss of vigour, which would be



The copper beech, 2010. In 2009 an approximate 25% crown reduction was recommended.



2013, after pruning. The tree will be completely removed in 2016.

expected given its maturity and previous pruning. However, no significant dieback was noted within the crown.

Since 2009 the use of Montpellier Gardens has much intensified, with various festivals such as Jazz, Food, Literature, Sports etc. occupying the gardens for up to 75 days of the year (as well as set-up and take-down times). All festivals take place between May and October – the time when such trees are most active and vulnerable to failure. The festivals are situated adjacent to but not underneath the canopy of this large tree. Heras fencing was erected prior to the setting up of the festivals and removed afterwards. This was paid for by festival co-ordinators.

During the set up of the Literature Festival in October 2012, and on a calm autumn morning, the tree shed a large (roughly 45cm diameter) limb without warning (just) over the footpath below. Thankfully no one was injured and there was no damage to property. However, the failure point exhibited a large area of decayed wood within the trunk. This area exhibited degraded (but not completely lost) wood shear strength.

However, as the tree had been fenced off, albeit temporarily for the festival, it was decided to retain this Heras fencing until the consultant had inspected. ACS revisited in November 2012 and again used the Resistograph in the same approximate areas as during previous

visits. It was found that internal wood decay was coalescing and advancing longitudinally up the trunk fissures as well as axially around the trunk, with the majority of the decay surrounding the fungal fruiting brackets.

It seemed as if the tree had reached the end of its safe useful life expectancy because of its condition: one large *Ganoderma adspersum* and several smaller ones at various points around the trunk as well as the sudden loss of a limb did not bode well. The propensity of park users to use the area under the tree for informal recreation was now presenting an unacceptable risk.

Helpfully, there were several recommendations within the report on the findings of the most recent safety inspection:

1. Remove the tree and replant.
2. Reduce the tree by 2–3 metres in height and spread, mulch under the canopy and fence the tree (to the original drip line) so as to strongly discourage the public from the area under the canopy with a view to complete removal after three years.
3. Reduce the tree by 4–5 metres in height and spread.

Trees officers decided the second option would be most suitable. The tree was

further reduced and happily there were adequate appropriate pruning points within the canopy. As such there appears to be sufficient retained twig work for the tree not to spiral into decline from a lack of photosynthetic material. A smart 'estate-fence' was erected around the original canopy drip line. This fence work was not cheap to put up, but it is anticipated that it can be used elsewhere after the eventual removal of the tree. Public notices have been attached to this fence explaining the current management plan and strongly discouraging the public from climbing beyond the fence line.

The 8cm carpet of composted woodchip laid under the canopy lies mostly undisturbed and this suggests that for the most part the public have not ventured into the target area.

More money and time has been spent on this tree than any other council-owned tree within Cheltenham. However, it is considered that this tree is a significant part of Cheltenham's leafy identity of 'a town within a park' and this pro-active, positive approach to the management of the tree has been broadly welcomed with very little adverse public reaction. Even the gentle public warning that the tree is to be entirely removed in 2016 has not generated a negative response. It seems as if unreasonable public reaction can be reduced with a simple, clear explanation of appropriate management. Cheltenham townsfolk are, in the main, tree enthusiasts (if not fundamentalists) and it seems only right and proper that the maximum benefit is gained from this most iconic public tree.



Public notices have been attached to the fence around the beech explaining the current management plan and strongly discouraging the public from climbing beyond the fence line.