The world's tallest hardwood tree

The world's tallest hardwood tree was discovered earlier this year in Tasmanian state forest less than less than five kilometres from Forestry Tasmania's Tahune Airwalk tourism attraction.

Forestry Tasmania staff Mayo Kajitani and David Mannes were routinely screening some new airborne laser scanner (LiDAR) data taken last August for giant trees when they found a large canopy whose maximum height reading was showing 99 metres.

Scarcely containing their excitement, they raced to the Huon River to check their giant, a mountain ash (*Eucalyptus regnans*), from the ground. Using special ground-based laser survey equipment, they got clear sightings to just below the top of the tree, giving readings of its height at over 100 metres.

"I had been saving the name Centurion for our 100th giant tree", says David. "None of us ever imagined that we would find a 100 metre tree instead."

A Centurion was the title given to a Roman officer in charge of 100 soldiers.

While it was initially thought to be the only known standing hardwood tree in the world to be over 100 metres tall, subsequent, more accurate measurements found that it actually measures 99.6m and has a diameter of 405cm. Not quite the full Centurion, but still the tallest *Eucalyptus* tree in the world, the tallest hardwood tree in the world, and the tallest flowering plant in the world. (Californian redwoods are taller, but they are softwoods, and botanists do not classify them as flowering plants).

It has now been nicknamed the Bradman because 99.6 was the legendary Australian cricketer's test run average. Even more fittingly, this particular botanical legend has it's own baggy green cap – a healthy new crown, resprouting from a broken top. This means, as David points out, the tree was once, in fact, even higher, easily topping 100m.

Another giant next door

The LiDAR imagery showed two very tall trees standing side by side. The ground truthing expedition found that right next to Centurion was another tree that qualified to be registered as a giant. Under Forestry Tasmania's (FT's) Giant Trees Policy, giant trees are defined as all those trees that are at least 85 metres tall or 280m^3 in volume.

Topping 86.5m with a diameter of 390cm, this second giant mountain ash was named Triarius, Latin for veteran soldier. Neither Centurion nor Triarius were previously in a reserve, but in accordance with FT's Giant Tree Policy, they were immediately registered and protected in a reserve.

The forest surrounding the two giant trees has had an eventful history. The ridge above and to their west appears to have been in the path of the 1934 wildfires, which left few older trees intact. These areas are now mostly stocked with tall natural fire-regenerated regrowth forests. Thirty years later, the forests immediately to the east of the giant trees were burnt (and regenerated) by the major wildfires of 1966 and 1967. The 1967 fire (the same one that burnt Hobart) devastated

The recently discovered (nearly) 100m tall 'Centurion' E. regnans on left with the only slightly smaller 'Triarius' next door.

much of the Arve Valley and resulted in a large area of fire regenerated forest. Because of the major fire disturbance in the surrounding forests, none of this area is classified as 'old growth' under the Regional Forest Agreement.

The previous tallest known existing hardwood tree was Icarus Dream, another *regnans* measured at 97m in the Styx Valley west of New Norfolk, Tasmania, in 2005. Records from Victoria, mostly from the 19th Century, describe a number of trees that are claimed to have been much taller than 100m, but many of these measurements are disputed. None of these giants now exist. Most were felled soon after measurement.

Comprehensive information about the tallest and most massive trees in Tasmania can be found at: www.gianttrees.com.au. The website is managed by the Giant Tree Consultative committee, a body established by Forestry Tasmania to provide independent advice on the protection, management and promotion of giant trees.