

Combating Crassula

How Cannock Chase Council Countryside Service has repelled an invasion.

It all began in 2003 and was a scene that could be repeated across the country. One sunny spring Sunday morning an average suburban couple took a trip to the nearby garden centre. As well as the bright splashes of colour for the patio they bought a nice little pond plant labelled 'Australian Swamp Stonecrop' (*Crassula helmsii*). The following winter, after arguing who had picked up the plant that had taken over the pond, most of it was pulled out. Better than wasting it they took it to the nearby pond in a Local Nature Reserve.

Autumn 2005

A volunteer task to remove reedmace (*Typha*) from the overgrown pond discovered Australian Swamp Stonecrop was present and thriving. This was very bad news as the plant could in a couple of years cover the pool, making it unsuitable for breeding amphibians.

Obviously something had to be done and quick. But what?

The Stonecrop could be sprayed with glyphosate. This tends to kill the portions of the plant above water level. Glyphosate is one of the few chemicals that can be sprayed near water but only then by an operator with the correct training and qualification.(PA1, PA6w). But where the *Crassula* has formed a large clump the centre of the plant can remain unaffected. Unfortunately, in this case it was too late in the year for glyphosate to be effective.

Option two was for very small amounts of Stonecrop to be removed and double bagged and stored for six months or so until lack of light eventually killed the plant. The bags could then be disposed of to landfill in accordance with appropriate legislation.

Option three was to exclude light from the plant in situ. This last option is the one that was chosen to be implemented. Sheets of heavy grade black plastic were cut to width to cover the full extent (400m²) of the invasive plant.

A turf stripper was used to cut strips of turf from the adjacent amenity grass. The turf strips were then placed on top of the plastic sheeting to weigh it down and improve the aesthetics.

Public information signs were erected to explain what was going on and the turf stripped areas were cultivated and sown with an arable wildflower seed mix. This was chosen to provide winter-feed for birds. In early December 2006 flocks of approximately thirty goldfinches with smaller numbers of chaffinches and house sparrows were seen feeding on the resulting plants and seeds.

Gone for Good?

The project is being closely monitored to determine the success of the work.

It appears that the work to eradicate *Crassula helmsii* has been largely successful with only small amounts coming back on one of the two pools treated. Given the relative success the process is going to be repeated on the smaller areas of reinvasion. Obviously further monitoring is required to keep this pernicious weed at bay

One unanticipated consequence of the work was the build up of decomposition gases under the plastic, forcing bulges up through the turf. This was resolved by popping the bulges with a fork, which allowed the plastic to sink again.

The pools that were treated were already quite eutrophic so the addition of nutrient rich turf was a minor issue compared to the invasive *Crassula*. Using this method of holding the plastic in place would need to be very carefully considered for mesotrophic/oligotrophic pools

I hope that other site managers do not have to cope with *Crassula helmsii*, but if you do the above approach shows that there is some hope.

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