

IT CAME, STAYED A WHILE, AND LEFT – THE STRANGE EARTHQUAKE TALE OF BACOPA IN CHRISTCHURCH

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Until very recently the Landcare Research website had no records of *Sutera cordata* (bacopa) in New Zealand, either under that name or the alternative *Chaenostoma cordatum*. That is because I never got round to sending specimens found in Central Christchurch off to them for identification and verification, in the mistaken belief that the plant was here to stay. It didn't. So, what follows is the only record I have of the presence of this plant in Christchurch, something that I find embarrassing and inadequate, but which I have been encouraged to write about.

Wikipedia lists the name of bacopa as *Chaenostoma cordatum*, with *Sutera cordata* as a synonym. It is a member of the Scrophulariaceae, both before and after the many recent taxonomic changes to that family. It originates in southern Africa and there are a number of cultivars. It is described as being a tender perennial ground cover, or for use in hanging baskets.

You can purchase plants of bacopa from your local garden shop. It is mostly sold as a plant for growing in hanging baskets, as it cascades down to put on quite a display. There are two common forms: a more vigorous white-flowered form, and another with deep blue flowers. The white form seems to be more popular as the flowers are larger. But bacopa is the kind of plant I pass by on my visit to my local plant shop as it has no appeal to me at all. It was used in the many hanging baskets of plants that the Christchurch City Garden Trust had hanging in various parts of the central city before the earthquakes.

My first encounter with this plant was when I discovered a tiny specimen in flower by a lamp standard in Victoria Square before the earthquakes. Using Volume IV of the Flora was not a good idea, because the characters did not lead me to the Scrophulariaceae, mainly because the key is only to the plants listed there and does not necessarily apply to the family as a whole. So, the plant sat unidentified until I dug a bit deeper and managed to work it out. By that time the plant was gone.

After the earthquake of 22 February 2011, the central city area of Christchurch was cordoned off and land management changed considerably. One of the things left behind in great numbers were the hanging baskets that adorned former shop fronts, now mostly gone (baskets and shops). As the cordons were reduced, normal maintenance was undertaken, and areas became either accessible or more visible

behind cordon fences. That was when I discovered what had happened with bacopa.

The first discovery was on Armagh Street between Montreal Street and Cambridge Terrace with the white form growing in abundance in cracks in the footpath. There were hanging baskets in an abandoned property nearby that I suspect was the origin. The white flowered form did not turn up elsewhere and once street maintenance started again and properties were either cleaned up or rebuilt, the plant disappeared fairly quickly.

The more spectacular event, however, occurred within the Central City Red Zone behind the fences where the blue-flowered form found the ideal habitat in areas that had paving blocks, with bacopa occurring in abundance between the stones. Probably the most spectacular sight was on the Worcester Street Bridge where the bacopa was so abundant that the whole bridge was a sea of blue.

That was the summer of 2011-2012. By the following summer most of the areas where bacopa had occurred were no longer behind barriers, but were accessible to people. But I still thought that there were going to be plenty of places for it to grow. But cracks were now occupied by other more standard weeds, and there was no sign of bacopa anywhere. It had literally come and gone in the space of a single year. I can only conclude that the wild plants were unsuccessful in surviving the winter or producing seed, unlike their parents in the hanging baskets.

So today I wander the central city in the hope that I will find a place where bacopa still occurs. I poke my nose through fences and peer at abandoned sites, but to no avail. One day I will find it again and this time I will do something about recording and collecting specimens. The least I have learned is a valuable lesson.

Postscript: Since preparing this article, bacopa has been found, back at the original site of greatest abundance on Worcester Street Bridge. There was just a single large plant of the blue-flowered form growing at the back of a rubbish bin where weeding contractors must have missed it (Fig. 1, p. 28). That specimen has been lodged at CHR, a photo has been taken, and the site posted on NatureWatch.



Figure 1 A large plant of the blue-flowered form of bacopa (*Chaenostoma cordatum*) growing at the back of a rubbish bin in 2015.

CONYZA BILBAOANA (CHILEAN FLEABANE) AS A FIREWEED IN CHRISTCHURCH FOLLOWING EARTHQUAKE CLEARANCE

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Anyone who remembers or read about the explosion of rosebay willowherb on the bombed sites of London may wonder whether such an event took place in inner city Christchurch following the clearance of earthquake damaged buildings here. My candidate for this is Chilean fleabane (*Conyza bilbaoana*) in the daisy family. Three species of *Conyza* are recorded from Christchurch district by Webb (1988). The earliest specimens found in the Allan Herbarium from Christchurch are of *C. bilbaoana* in the grounds of the Public Library (FC Allen, May 1946), *C. bonariensis* at Sumner (FC Allen, June 1946), and *C. sumatrensis* (*C. albida* in Webb 1988) in the Ministry of Works car park, Government Buildings (A) Healy 70/184, December 1970).