

Profile of a horticulturist: Walter Boa Brockie (1897–1972), some overlooked memories

Lawrie Metcalf¹

It is believed that Walter (“Wattie”) Boa Brockie NDH(NZ), FRIH(NZ) (Fig. 1) was born into the Kirk (Church) of Yarrow, Selkirk, Scotland, which is near the border with England. It apparently was the Kirk also known to Sir Walter Scott. Brockie’s second name was the family name of “Boa” and it was apparently a name fused on the distaff side of his family although, later on, it also briefly made its appearance on the male side of the family.

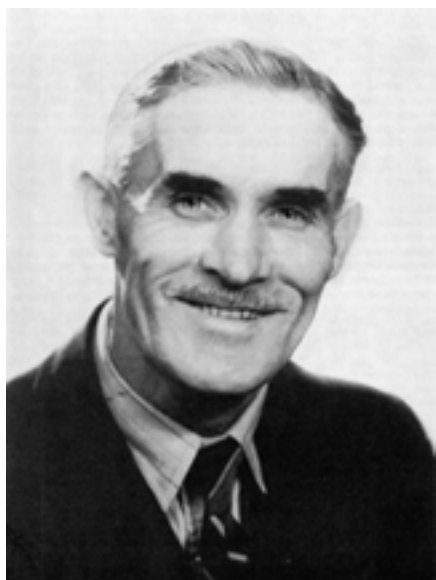


Fig. 1 Walter (“Wattie”) Boa Brockie (1897–1972). Photographer unknown.

He was employed in the Christchurch Botanic Gardens, New Zealand, from 1928 or 1929. From June 1943 to March 1944 he took on the position of Acting Director of the Christchurch Botanic Gardens, and he was also Secretary and Botanist to the Board of Trustees of Riccarton Bush, Christchurch.

Wattie Brockie was largely responsible for the creation of the Cockayne Memorial Garden as well as the main adjoining exotic rock garden in the Christchurch Botanic Gardens.

Whether his position of Acting Director of the Christchurch Botanic Gardens was a genuine promotion or whether it was because of the exiguous nature of the board’s finances at the time is not known.

He married Vera in 1931 and they had a son, Robert (“Bob”) and two daughters, Janet and Barbara.

Castle Hill Reserve



Fig. 2 The Castle Hill buttercup, *Ranunculus paucifolius*. The conservation status of this plant remains Nationally Critical. Photo: Brian Molloy, 21 October 1975.

From 1940 to 1946 when he left Canterbury, he took an active interest in the habitat and preservation of the Castle Hill buttercup, *Ranunculus paucifolius* (Fig. 2). Such was Brockie’s interest in this species, that he was solely responsible for the preservation of its natural habitat at Castle Hill, in Canterbury’s Broken River basin, as a Scientific Reserve. At the Annual Conference of the Royal New Zealand Institute of Horticulture (RNZIH) in 1942 a remit regarding its protection was sent to the Minister in Charge of Scenery Preservation. A tentative survey of the area, to be enclosed, was made soon afterwards but, owing to war conditions, the project was postponed. It was not until December 1945, at a meeting of the Canterbury Branch of the RNZIH that the project was revived. The Minister replied as a result, writing: “I am

happy to say that the Government, through the Department of Lands and Survey and with the Consent of the Trustees of the Castle Hill Estate, has decided to erect a fence enclosing the area, containing the *Ranunculus*, together with the eastern slope of the basin mentioned above; an endeavour will be made to extend the distribution of the species. The enclosed area will be declared a reserve under the Scenery Preservation Act.”

Wattie Brockie sought to have the area occupied by the *Ranunculus* enclosed with a fence in order to exclude cattle, which had free access to the area, and were causing severe damage to the small *Ranunculus* plants. The fence was erected once the area was finally declared a reserve under the Scenery Preservation Act, and was the first reserve in New Zealand created to protect a single species (Fig. 3).



Fig. 3 Castle Hill with the original reserve in the foreground and the extended reserve area in the background. Although established to protect the Castle Hill buttercup, this reserve contains other rarities including the Nationally Endangered *Australopyron calcis* subsp. *optatum* and the Nationally Vulnerable *Carex inopinata*. Photo: Brian Molloy, 30 December 1980.

Thus it was entirely because of a booklet written by Brockie (1946), and his personal efforts that the habitat of this unique *Ranunculus* was finally preserved. Canterbury conservationist

¹ 20 Kotuku Street, Lincoln 7608, New Zealand; landmetcalf@xnet.co.nz

Lance McCaskill² also took quite an interest in Brockie's project and I think that it was because of that proposal that McCaskill tended to claim the credit for being instrumental in setting aside the reserve for the preservation of the *Ranunculus*. I think that it was solely because of Brockie's persistent efforts that the area was eventually named as a nature reserve although unfortunately, it was named the Lance McCaskill Nature Reserve. There is nothing to indicate that it was Brockie who was actually responsible for recognising the scientific value of the area and, in my opinion, the reserve really should have been named as the Walter Brockie Nature Reserve. Perhaps it is not too late to rename the reserve more appropriately. Some recognition was received for Brockie's conservation work though, as he was awarded the Loder Cup in 1945³.

Christchurch Botanic Gardens

Wattie Brockie was initially employed on the gardening staff of the Christchurch Botanic Gardens and it was initially his skill with the use and placement of rocks that he really came to the fore, which also coincided with the intention to build a large rock garden near the south-western corner of the Botanic Gardens, and near to the southern end of Beswick's Walk. This rock garden involved quite a considerable amount of labour. Because of his skill in working with rocks (learned when he was put to work in WWI as a track-layer and tunneller in the Taurus Mountains, Turkey, as a prisoner of war), the construction of the rock garden automatically fell onto the shoulders of Brockie. It was also about this time, or perhaps a little earlier, that his interest in native plants also really developed.

Nearby, perhaps about 1937, Wattie Brockie had also commenced the construction of the Cockayne Memorial Garden – a native plant garden commemorating botanist Dr Leonard Cockayne. This was on the western side of Beswick's Walk. It consisted of a generously sized alpine garden, surrounded by a native tree and shrub border and it also comprised a hebe garden that was originally planted with a range of *Hebe* (*Veronica*) *odora* and *Hebe* (*Veronica*) *traversii*, to demonstrate

a *Chromosome Atlas* survey of those two species and how they intergraded with each other. This research on hebes was conducted by Doctors J. B. Hair and Otto Frankel (e.g., Frankel and Hair, 1937; Frankel, 1941; Hair, 1967). The Cockayne Memorial Garden was officially opened by Professor Carl Skottsberg on 4 November 1938, four years after Dr Cockayne's death. Although Wattie Brockie built the garden and stocked it with plants he collected in the mountains, he never got a mention in Skottsberg's speech.

Material for the exotic rock garden came mainly from a small knoll at the beginning of the southern side of the Tai Tapu road straight, just beyond the south-east limits of Halswell township (now a suburb of Christchurch). Some of the largest rocks came from that area; particularly those used for around the waterfall. At that time the Gardens had an old Ford truck which was used for carting the largest rocks, some of which weighed up to 5 tons. It is understood that with some of these heavy loads, the tires were actually smoking by the time the truck arrived back at the Botanic Gardens. The remains of the knoll are still visible from the main road with a few remaining rocks left on it. The rock garden of exotic alpine plants took about two years to construct, between 1938 and 1939 (Fig. 4).



Fig. 4 The largest boulder used for construction of the exotic rock garden, said to have been sourced from Scarborough. Walter Brockie is perched in the top middle of this photo. The other men are Ted Roe (left) and A. B. Tomes (right). This photo was taken around the time for the opening of the rock garden on 29 July 1939. Photo courtesy of Bob Brockie.

Later, beyond Brockie's time, there were various other alterations and additions to the Cockayne Memorial Garden. The central portion of the

original native rock garden, within the Cockayne Memorial Garden, consisted of a relatively large artificial scree, on a concrete base which was stepped to allow water to gradually trickle downwards, thus imitating the conditions of a natural scree.

While at the Christchurch Botanic Gardens, Brockie established a seed exchange programme, swapping seeds of native plants with seeds received from overseas. He also wrote regular gardening columns for *The Ashburton Guardian* and *The City Beautiful* for several years during the 1940s and was editor of the *Journal of the Royal New Zealand Institute of Horticulture* from 19 August 1947 to 17 February 1948.

In February 1945, Brockie authored a small (32 page) handbook *New Zealand alpinines in field and garden* (Fig. 5). In it he described 51 species of native alpine plants and their cultivation.

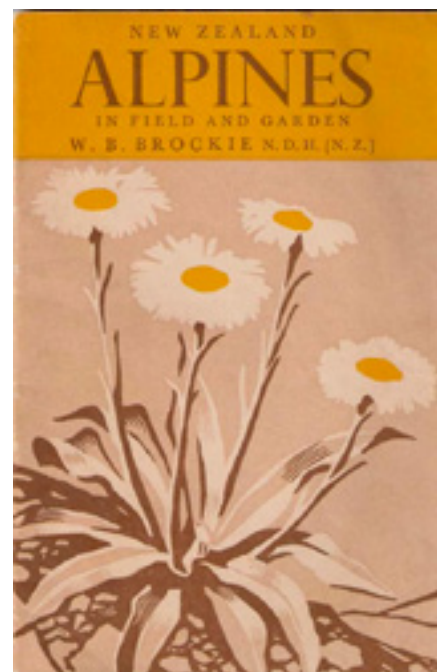


Fig. 5 Book cover of the 1945 *New Zealand alpinines in field and garden*. Image courtesy of Bob Brockie.

Campbell Island expedition

In 1946 Wattie Brockie, through the Christchurch City and Suburban Domains Board, was instrumental in being seconded to the Meteorological Division of the DSIR so that he could spend time down on Campbell Island, collecting some of the special subantarctic plants growing there outside of his official duties as

² Profiled at www.teara.govt.nz/en/biographies/5m6/mccaskill-lancelot-william

³ See www.doc.govt.nz/getting-involved/events-and-awards/awards/loder-cup-award/all-winners-from-1929/

Meteorological Observer. He spent from November 1946 to June 1947 on Campbell Island (Fig. 6). Eventually a supply of plants arrived back at the Botanic Gardens and they were duly planted out in the Cockayne Memorial Garden. A large number of herbarium specimens were also collected by Brockie.



Fig. 6 Walter Brockie (bottom left) on Campbell Island with other expedition members 1946–1947. Photo courtesy of Bob Brockie.

Otari and Wellington

Upon his return from Campbell Island, Brockie applied for the position of Curator of the Otari Native Plant Museum for the Wellington City Council, or perhaps he was “shoulder tapped” to apply for the job. This was to be his last position before he eventually retired.

In 1907 the New Zealand Government purchased 150 acres in what was known as the Wilton area of Wellington, and proclaimed it as a scenic reserve, to be vested with the Wellington City Council. In 1927, largely at the instigation of Dr Leonard Cockayne and the then Director of Parks, J. G. MacKenzie, it was set aside as a reserve for the planting of a collection of the indigenous plants of the New Zealand Botanical Region and for the protection and improvement of the native forest already there. Originally it was known as the Otari Open Air Plant Museum (and is now known as the Otari Native Botanic Garden and Wilton’s Bush Reserve). It was the arrival of W. B. Brockie as its Curator, in June 1947, that really saw the establishment of Otari as a “living plant museum”. Brockie realised that the establishment of a “living plant museum” was a great challenge. Under his curation a rock garden was established (Fig. 7) and various tree and shrub borders were also created.

Around the perimeters of the bush area he began to use *Phormium tenax* (flax or harakeke) as a shelter belt planting because he discovered that it was most effective for preventing the invasion of gorse from the nearby farmland. A good thick planting of *Phormium tenax* prevented all but the most tenacious of gorse plants from invading the bush areas.



Fig. 7 Brockie’s Otari legacy: the rock garden, June 2011. Photo courtesy of Otari Native Botanic Garden and Wilton’s Bush Reserve.

Plant collecting in the South Island

During the 1940s he teamed up with Harry Talbot (1898–1982), who was then headmaster of the Springfield Primary School, Mid Canterbury (Godley, 2000). They formed a very dedicated team of botanists, going on numerous collecting trips, whenever the opportunity arose. Of course with Wattie Brockie’s transfer to Wellington, they then began to devote more time to the Nelson area and it was during a trip to the Goulund Downs area that they discovered the minute *Bulbinella* which was named *B. talbotii* (Fig. 8).



Fig. 8 *Bulbinella talbotii* in flower, Goulund Downs, and named after Harry Talbot in 1973. Photo: Simon Walls, November 2004.

Another discovery from North West Nelson, the rare *Coprosma talbrockiei* (Fig. 9), combines their surnames to commemorate the contributions to New Zealand botany made by these two friends during their many joint expeditions from the early 1940s to 1970.



Fig. 9 *Coprosma talbrockiei* in fruit, and named in 1974 to commemorate both Talbot and Brockie. Photo: Simon Walls, March 2006.

Species named after Walter Brockie

Several plant discoveries were named after Brockie. *Myosotis brockiei* and *Scleranthus brockiei* are two species still recognised today. *Myosotis brockiei* (Fig. 10) is a rare species endemic to North West Nelson. *Scleranthus brockiei* (Fig. 11) is a mat-forming ground cover occurring sporadically in the South Island and is also indigenous to Australia.



Fig. 10 *Myosotis brockiei* in flower, Magnesite Creek, a rare NW Nelson forget-me-not named after Walter Brockie in 1973. Photo: Simon Walls, December 2003.

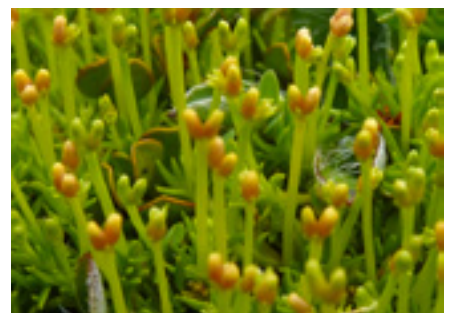


Fig. 11 *Scleranthus brockiei* in flower, named in 1956. Photo: David Glenney, Landcare Research, February 2011.

Melicytus “Brockie” is an undescribed plant allied to *M. alpinus*; it has not been formally named.

Two other species named after Brockie have now become synonyms. *Hebe brockiei* is a synonym of *Hebe (Veronica) treadwellii*, and *Wahlenbergia brockiei* is a synonym of *Wahlenbergia albomarginata* subsp. *albomarginata*. Similarly, *Poa*

breviglumis var. *brockiei* is a variety no longer recognised as distinct from the species. However, these names remain in the botanical literature to commemorate this remarkable plantsman.

Native plant hybridising

In the Christchurch Botanic Gardens a hebe selection was the first hybrid that Brockie produced. It was a hybrid between *Heliohebe* (*Veronica*) *raoulii* (the female parent) and *Heliohebe* (*Veronica*) *hulkeana*. It was produced sometime during the early 1930s and he named it *H.* 'Hagley Park' (Fig. 12A–B). I think that it may have been a chance seedling between the two aforementioned species because they were growing almost alongside each other in the old original native alpine garden.



Fig. 12 *Heliohebe* (*Veronica*) 'Hagley Park'. **A**, Planted in the Christchurch Botanic Gardens alongside Walter Brockie. Photo courtesy of Bob Brockie. **B**, Plant in flower. Photo: Roy Edwards.

There was another hebe (not a Brockie hybrid) which was a chance seedling raised at the Christchurch Botanic Gardens. L. B. Hart named it *Hebe* 'Youngii' (Fig. 13), after James Young, the then Curator of the Christchurch Botanic Gardens. Wattie Brockie was present at its naming and he gave a personal account of the circumstances of its naming (Metcalf, 2000). *H.* 'Youngii' originated in a

border of hebes, and was a hybrid between *Hebe* (*Veronica*) *elliptica* and *Hebe* (*Veronica*) *pimeleoides*.



Fig. 13 *Hebe* (*Veronica*) 'Youngii' in flower. Photo: Roy Edwards.



Fig. 14 *Phormium* 'Smiling Morn'. Photo: Roy Edwards.



Fig. 15 Walter Brockie in his Richmond garden kneeling beside *Phormium* 'Smiling Morn' for which he is receiving the RNZIH Plant Raisers' Award for 1968. Included in the group are Bob Brockie (bottom left), Vera Brockie (middle back), Harry Talbot (back right), and Ray Mole who gave the speech (front right). Photo courtesy of Bob Brockie.

Brockie's first attempts at deliberate plant breeding were during the 1940s (or just before) when he commenced the crossing of two clones of *Phormium*. One was probably a hybrid between a purple form of *P. colensoi* × *tenax*, the other was a purple form of *P. tenax*⁴. The former was quite a small plant while the latter was a more normal sized form of *P. tenax*. By crossing those two plants of *Phormium* he derived about seven plants with leaves that varied

from purplish to bronze. One plant, in particular, had various pinkish stripes along its leaves and to that Wattie Brockie gave the name of *P.* 'Smiling Morn' (Fig. 14). It was a first-class plant for which Brockie received the RNZIH Plant Raisers' Award for 1968⁵ (Fig. 15). However, even at that stage, it was demonstrating suggestions that it may be a chimera, because some parts of it would gradually revert to purple or bronze, eventually losing some of its pink colouration. A similar cultivar from the foregoing cross was named *P.* 'Aurora' (Fig. 16) and the others were not named by Brockie. This foliage reversion is a definite problem with some *Phormium* cultivars on the market.



Fig. 16 *Phormium* 'Aurora'. Photo: Roy Edwards.

It was also at about that time, during the late 1940s, that Brockie began to experiment with producing some hybrid cultivars of *Coprosma*. The six cultivars that he initially produced were named *C.* 'Brownsleeves', *C.* 'Coppershine', *C.* 'Greensleeves', *C.* 'Lofty', *C.* 'Robin' and *C.* 'The Shiner'. Later on he also raised and named *C.* 'Ron Simpson' (a cultivar named in 1974 by Brockie after his nurseryman friend of Richmond, Nelson) and *C.* 'Robin'. *Coprosma* 'Walter Brockie' (Fig. 17) is perhaps a cultivar epithet bestowed by somebody from the Christchurch Botanic Gardens who felt that Brockie's name ought to be honoured.

⁴ The parentage stated in the *Checklist of Phormium cultivars*, by Peter B. Heenan, 1991, p. 27, is actually not quite correct because it differs from that originally described by R. H. Mole.

⁵ See *Journal of the RNZIH*, 1969, Vol. 1, No. 2, p. 68.

Given that his horticultural career was so involved with the Christchurch Botanic Gardens, it seems fitting for a plant raised there, of his breeding, to be named after him.

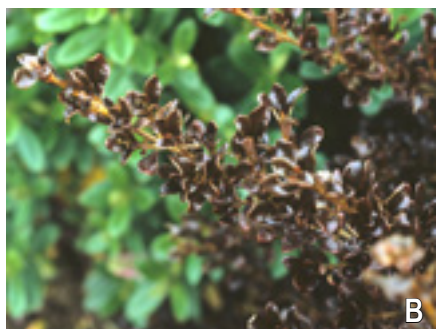


Fig. 17 *Coprosma* 'Walter Brockie'. **A**, plant. **B**, close up of distinctive glossy brown leaves. Photos: Roy Edwards.

Commencing with his time at Otari, Brockie also devoted quite a bit of time to hybridising the genus *Epilobium*. From the late 1950s he began, in earnest, to hybridise numerous species of *Epilobium*, in order to test the pollen-sterility, particularly with regard to what would be the effects of making various hybrids. In total Brockie (1959, 1966) made about 900 crosses among *Epilobium*, of which 75% were of hybrid combinations. Natural hybridisation, in New Zealand, occurs in at least 38 interspecific combinations, but there could be another 10 that would be difficult, if not impossible, to detect in the wild because of the similarity between *Epilobium* species. It should be pointed out that amongst the F₁ hybrids produced by Brockie, many were fully vigorous and fertile and represented combinations of characteristics not seen in nature. Brockie's careful work on *Epilobium* no doubt contributed to Peter Raven's (Missouri Botanical Garden) revision of the genus (Raven, 1972).

Brockie also continued with occasional *Phormium* breeding and he named one particularly handsome cultivar *P.* 'Vera Brockie,' after his

wife. This would appear to be one of the last cultivars that he produced and, unfortunately, it does not appear to have made its way into permanent cultivation.

Commencing about 1946 he had begun rebuilding the rock garden at Otari, which was on the lawn just out from the caretaker's residence. That was during a time of financial stringency and he had what he referred to as 0.8 of a man per week to assist him. At that time, I was on my way up to New Plymouth, to commence working at Duncan and Davies Nursery, and so I was able to assist him with a week's labour for which I think he was very grateful.

Upon his retirement in May 1962, Walter Brockie resided at Surrey Road, Richmond, Nelson (Fig. 18) until his death on 17 December 1972. The gardens he created, the species he discovered and the cultivars that he raised remain as his living legacy. It is a fitting tribute that on 3 November 2009 the rock garden at Otari was officially named the 'Brockie Rock Garden'. Members of the Brockie family gathered with friends for the commemoration ceremony.



Fig. 18 One of the last photos of Walter Brockie, in his garden in Richmond, in 1971. Photo courtesy of Bob Brockie.

Acknowledgements

I wish to thank Walter Brockie's son, Bob Brockie, for providing historic photos, additional notes and for checking a draft of this article. Dr Brian Molloy kindly provided photos of Castle Hill Reserve and *Ranunculus paucifolius*; Simon Walls and Dr David Glenny provided photos taken in the wild of native plants named after

Brockie and Talbot; and Roy Edwards provided photos of cultivars raised by Walter Brockie or named after him. Riwi Elliot provided the photo of the rock garden at Otari Native Botanic Garden and Wilton's Bush Reserve.

References

- Brockie, W.B. (1945). New Zealand alpine in field and garden. The Caxton Press, Christchurch.
- Brockie, W.B. (1946). *Ranunculus paucifolius* T. Kirk. *Bulletin (Christchurch Domains Board)*, No. 2. 14 pp.
- Brockie, W.B. (1959). Breeding systems in New Zealand species of *Epilobium* L. *Transactions of the Royal Society of New Zealand* 87: 189–194.
- Brockie, W.B. (1966). Artificial hybridisation of New Zealand species and varieties of *Epilobium*. *New Zealand Journal of Botany* 4: 366–391.
- Frankel, O.H. and Hair, J.B. (1937). Studies on the cytology, genetics and taxonomy of New Zealand *Hebe* and *Veronica*. (Part 1). *New Zealand Journal of Science and Technology* 18: 669–687.
- Frankel, O.H. (1941). Cytology and taxonomy of *Hebe*, *Veronica* and *Pygmaea*. *Nature (London)* 147: 117–118.
- Godley, E.J. (2000). Biographical Notes (38): Harry Talbot (1898–1982). *New Zealand Botanical Society Newsletter* 60: 24–28. Available at www.nzbotanicalsociety.org.nz/newsletter/NZBotSoc-2000-60.pdf.
- Hair, J.B. (1967). Contributions to a chromosome atlas of the New Zealand flora – 10. *Hebe* (Scrophulariaceae). *New Zealand Journal of Botany* 5: 322–352.
- Metcalf, L.J. (2000). New Zealand trees and shrubs. Reed Books, Auckland.
- Raven, P.H. (1972). Evolution and endemism in the New Zealand species of *Epilobium*. In: Valentine, D.H. (ed.). Taxonomy, phytogeography and evolution. Academic Press, London. 259–274.
- Simpson, M.J.A. (1974). Walter Boa Brockie, N.D.H.(N.Z.), F.R.I.H.(N.Z.) 1897–1972. *New Zealand Journal of Botany* 12(1): 149–156.



The exotic rock garden at Christchurch Botanic Gardens.
Photo courtesy of Neil Macbeth and Christchurch Botanic Gardens.