# Walter Brockie's hybrids

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While my father, Walter Brockie, was curator at Otari from 1947 to 1962, he crossed many native plants with each other. He did this to check on the taxonomic status of hybrid plants in the wild, to investigate their evolutionary history or to produce new plants for horticulture.

Among these plants were several species of *Hebe* which he crossed with each other and an alpine fuchsia which he hybridised with the lowland tree fuchsia. He also crossed the white-flowered Mount Cook lily, *Ranunculus lyalii* with *Ranunculus insignis*, a North Island species with large yellow flowers. The result was a handsome plant with pale lemon petals and much larger than either of its parents—the result of hybrid vigour. Unfortunately this sterile hybrid survived for only one season.

My father took a close interest in the taxonomy and evolution of our native willowherbs (*Epilobium*). In trying to separate true species from natural hybrids and elucidate their genetic relatedness and evolutionary history, he crossed 34 species of mainly alpine willowherbs with each other—and back-crossed many of these hybrids with their parents; a total of 511 hybridisations (Brockie 1965).

In his retirement to Richmond, Nelson, my father continued his experiments, crossing a tiny male purplish-leaved creeping alpine *Coprosma ciliata* [probably now treated as *C. pseudociliata*] with a large shiny-leaved coastal female taupata, *Coprosma repens.* This cross resulted in a generation of identical hybrids with intermediate characteristics between the two parents. He then back-crossed this F1 generation with its taupata parent to produce a 'hybrid swarm', that is to say a wide range of sterile coprosma hybrids with every combination of their parents' features (Fig. 1). Among them were creeping plants with large leaves, large purple-leaved, copper coloured or variegated shrubs, some the shape of Christmas trees or pillar boxes or squat grey-stemmed female plants covered with large bunches of orange berries, and dense hedge-plants with tiny purple leaves. He named some of these sterile hybrids 'Coppershine', 'Greensleeves', 'Shiner', 'Copper', 'Penny' and so on. Many of these hybrids are to be found in commercial nurseries up and down the country today. Because these tough shrubs will grow on poor clay soil or almost bare rock on cold windswept sites, they are widely used on highway median strips, traffic roundabouts and municipal

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Figure 1. Walter Brockie's hybrid *Coprosma*. The parent female taupata, *C. repens*, and male *C. ciliata* [probably now treated as *C. pseudociliata*] plants are top-left and top-centre, respectively. Between them is an example of the hybrid (F1) generation, which were all identical. Below are eight hybrids, the result of backcrossing the F1 generation with its taupata parent. Sketch Bob Brockie, 1970.

plantings. Many of these hybrid coprosmas respond to clipping by growing more densely so they make fine colourful hedge plants.

I remember my father hybridising other plants but do not recall the details.

**REFERENCES**

Brockie, W.B. 1965: Artificial hybridisations of New Zealand species and varieties of *Epilobium*. *New Zealand Journal of Botany 4*: 366–391.