

the lifecycle and dispersal of this species, and provide further insights into its habitat requirements for further conservation.

## References

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## **A rare natural hybrid between two common species: *Plagianthus divaricatus* x *P. regius***

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I first noticed this *Plagianthus* hybrid many years ago when working at the Christchurch City Council nursery. The nursery grows native revegetation plants including considerable numbers of both *Plagianthus* species from wild-sourced seed, *P. regius* from the Port Hills, and *P. divaricatus* from the Avon/Heathcote estuary. We noticed the occasional “off type” individual among the *P. divaricatus* seedlings. One of these was grown on for a few years and it soon became obvious that it was a hybrid.

These hybrid plants were a rare occurrence, only a very few among thousands of *P. divaricatus* seedlings. The *P. divaricatus* seed source growing around the estuary has *P. regius* nearby in reserve plantings and private gardens, close enough for pollinators and with potentially more hybrids in the longer term as these *P. regius* mature.

When walking on the Little River Rail Trail recently alongside Lake Forsyth I found a large hybrid plant. Though the nursery plants were all grown from seed collected from wild plants, this was the first *Plagianthus* hybrid I had seen in the

wild. A subsequent conversation with Hugh Wilson revealed that he had seen several hybrids along this area of the Rail Trail.

Even more interestingly I found another plant a few days later in the native garden at the Department of Conservation Nursery at Motukarara. This DOC plant is a spontaneous seedling growing through established plantings and not one planted by the nursery. As both parents are growing together it is probably not a surprise that a hybrid would turn up there eventually.

Both the Rail Trail hybrid and the plant in the Nursery are around 2.5–3 m tall. The Rail Trail plant is nearly as wide. The DOC plant is more drawn up due to taller surrounding trees. Growth is a tangle of slender twiggy branches though more open than in *P. divaricatus*. Leaves on the hybrid are 25–35 mm x 6–8 mm with 2 or 3 pairs of shallow teeth toward the tip, and including an 8–10 mm petiole.

*Plagianthus divaricatus* has narrow, untoothed, 10–15 mm x 2 mm leaves. *Plagianthus regius* has much larger leaves, 40–70 mm x up to 50 mm with obvious teeth along most of the margins. Juvenile *P. regius* has twiggy growth and tiny leaves but they are still almost as broad as they are long, deeply toothed and clearly different from the hybrid.

The Rail Trail plant is a female and had at the time of discovery a crop of hard little fruit containing a single, more or less round, brown seed typical of both parent species. This fruiting stage further confirms the plant's hybrid status. *Plagianthus divaricatus* has a single fruit (occasionally two) per node. *Plagianthus regius* has a large compound inflorescence with sometimes hundreds of fruits.

The hybrid has up to 15 fruit per node on the sample counted. A sample of the hybrid fruit was cut open and had obvious endosperm inside. Some have been sown and will hopefully germinate and, if so, be grown on for observation.

Hugh Wilson mentions the hybrid in *Small-leaved shrubs of New Zealand* and in *Plant life on Banks Peninsula*. Cheeseman in his *Manual of the New Zealand flora* describes it under the name *P. cymosus* with the comment “standing about halfway between *P. divaricatus* and *P. betulinus (regius)*” and comments on its rarity. Allan's *Flora of New Zealand* repeats these observations.

If anyone wants to look at these plants, the Rail Trail one is approx. 750–800 m from Manderley heading toward Birdlings Flat. It is on the lake side of the track in clear view of the road and just before a group of willows. Following Hugh's comments I have subsequently found several others on the rail trail by the lake. The DOC plant is on the right-hand side of the Motukarara Nursery car park (facing the nursery) growing through a group of *P. divaricatus*.