

## The *Bomarea* mystery deepens....

In the last newsletter Moira Parker wrote about the invasive climber *Bomarea*, and mentioned that both *B. caldasii* and *B. multiflora* are listed as pests in Otago. I have been investigating further and there is clearly some confusion as to whether we have *B. caldasii*, *B. multiflora* or both species in New Zealand. The only *Bomarea* mentioned in the Flora (Healy & Edgar 1980) is *B. multiflora*. This species is described in the New Royal Horticultural Society Dictionary of Gardening (Huxley et al. 1992) as having approximately equal tepals (2.5 cm long), 20-40 flowers per umbel, and leaves to 10 cm. The Otago plants fit the description of *B. caldasii* rather than *B. multiflora* based on the obvious unequal lengths of the inner and outer tepal whorls; *B. caldasii* tepal sizes are described by the same publication as outer 2-2.5 cm, inner 2.5-3.5 cm. Tepal lengths of Otago specimens fall clearly and consistently into these ranges. The same publication also lists *B. caldasii* as having 20-60 flowers per umbel, and leaves 15 x 2.5 cm. As Moira's article mentioned, Otago *Bomarea* can have more than 70 flowers per umbel, and leaves of Otago herbarium specimens held at OTA are up to 13 x 2.3 cm in size (leaves closer to the inflorescence tend to be smaller than more distal leaves, which makes measuring from herbarium specimens problematic).

But the *Bomarea* identity crisis extends beyond Otago. *Bomarea multiflora* specimens held at the Landcare Herbarium in Lincoln (CHR) have apparently already been redetermined as *B. caldasii*. I have recently seen the Auckland *B. multiflora* specimen (AK 105812) referred to in Healy & Edgar (1980), and it too appears to have unequal tepals (outer 2.3-2.5, inner 3-3.1). This is also the case for all other *B. multiflora* specimens held at Auckland War Memorial Museum. Furthermore, leaves are usually over 10 cm long, but there are 40 or fewer flowers per umbel.

Confused, and in need of a more definitive reference than the Royal Horticultural Society Dictionary of Gardening, I contacted Dr Roy Gereau, a *Bomarea* expert at the Missouri Botanic Gardens, who admitted to being somewhat confused himself! It appears that the initial descriptions related to two clearly distinct species, which later typified separate sections within the genus. However in a recent work on the vascular flora of Ecuador, *B. caldasii* was placed in synonymy under *B. multiflora*. Based on a scanned image I sent him, Dr Gereau agrees that our Otago *Bomarea* most likely represents *B. caldasii* as he defines it, but all parts are at the smaller end of the range of sizes for *B. caldasii*. Dr Gereau has forwarded my email and scanned image to a colleague working on *Bomarea* in Colombia, so hopefully I will have a more definitive diagnosis to report in the next newsletter.

**Watch this space...**

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### References:

- Healy, A.J., and E. Edgar. 1980. Flora of New Zealand, Volume III, Government Printer, Wellington.
- Huxley, A., M. Griffiths and M. Levy. 1992. The New Royal Horticultural Society Dictionary of Gardening, MacMillan Press, London.