

Beach morning glory (*Ipomoea pes-caprae* subsp. *brasiliensis*) in beach drift on Ripiro Beach, Omamari Stream Mouth, Northland

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INTRODUCTION

During January 2010 while walking a stretch of Ripiro Beach (35° 52' 12.01" S, 173° 40' 1.81" E) near Omamari, west of the Kaiwi Lakes (Fig. 1), I found within the beach drift ten seeds of beach morning glory (*Ipomoea pes-caprae* subsp. *brasiliensis*). The seeds of beach morning glory (Fig. 2) are fairly distinctive. Webb & Simpson (2001) provide an excellent description, noting that they are large (7.3–8.0 × 7.0 mm), broadly obovate to circular, weakly compressed seeds. The testa is especially distinctive being completely invested in short brownish hairs. I was also familiar with

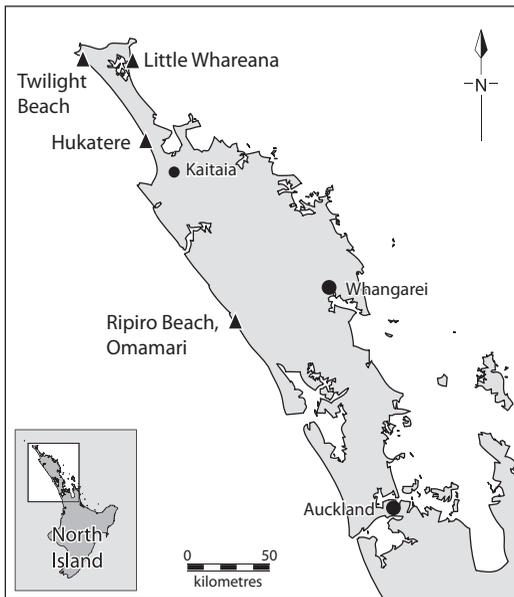


Figure 1. The location of Ripiro Beach, Omamari, and past and extant beach morning glory (*Ipomoea pes-caprae* subsp. *brasiliensis*) sites in Northland.

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the seeds of beach morning glory from my field work on Rarotonga, Norfolk Island (Anson Bay and Emily Bay) and Raoul Island, places where beach morning glory naturally grows. However, I had not previously seen them in New Zealand proper, so I was more than a little surprised to see them at Omamari. Back in Auckland, having confirmed my identification, I decided to see if the seeds were viable. I kept one for a voucher (Fig. 2) and planted the other nine to see what would happen. After seven days two of the seeds germinated, and these I grew on until autumn when the plants (even though I had kept them inside our house) started to suffer from the evening chill. Therefore, I decided to be pragmatic and make herbarium specimens of them (Fig. 3) rather than await the inevitable, as even in Auckland's mild winter climate past attempts to cultivate beach morning glory have always failed. These specimens have been accessioned into the herbarium of the Auckland War Memorial Museum (AK).



Figure 2. Seed of beach morning glory (*Ipomoea pes-caprae* subsp. *brasiliensis*) from Ripiro Beach, Omamari. Scale = 5 mm. Photo: Jeremy Rolfe.

BEACH MORNING GLORY (*IPOMOEA PES-CAPRAE* SUBSP. *BRASILIENSIS*) IN NEW ZEALAND

Within New Zealand proper beach morning glory reaches what is probably its functional world southern limit at Hukatere (Fig. 1) located near the southern end of Ninety Mile Beach, where at least one vine was discovered in the early 1960s (Cooper 1967; Sykes 1970). As far as I know beach morning glory has now vanished from that site, though its seed is, as was first observed by Mason (1961), commonly found in beach drift on Ninety Mile Beach. Although the Hukatere occurrence was once a reasonable size (up to 9 m² states Eagle 1982), it was in serious decline when it was shown to Audrey Eagle in 1981, who at that time saw only a few stems and who noted that “Mr Ogle [the Chief Forester, Aupouri State Forest] attributed the cause of decline to “the new *Pinus radiata* forest nearby and the introduction of lupin...”



Figure 3. Herbarium specimen of beach morning glory (*Ipomoea pes-caprae* subsp. *brasiliensis*) seedlings germinated from seed collected from Ripiro Beach, Omamari, in January 2010. Scale = 50 mm.

Apparently the few stems seen by Eagle were also being consumed by snails. It would seem that Eagle's observation was the last time this plant was recorded as present at Hukatere, and certainly by 1992 when I went looking for it I failed to find it at this site. However, on 5 December 1996 whilst doing a botanical survey of the Te Paki beaches Tony McCluggage (Department of Conservation) and Lisa Forester (now Northland Regional Council) located another beach morning glory plant, this time on the remote Twilight Beach on the western side of Te Paki between Scott's Point and the cliffed coastline leading to Cape Maria van Diemen (Young 1998). That plant flowers regularly and also produces viable seed (Benham & Hambly 1998). Lisa Forester (*pers. comm.*) has also told me of another find, this time from the eastern side of Te Paki on the beach of Little Whareana (Fig. 1), where she found a single seedling in February 2002. This seedling evidently didn't survive, although I gather from Department of Conservation staff and local iwi that beach morning glory does occasionally appear on the eastern Te Paki beaches, though it never seems to persist there. Aside from Te Paki and Hukatere, I am not aware of any further records of beach morning glory plants from elsewhere in Northland. Obviously I have no way of knowing whether the Twilight Beach plant or any hitherto undiscovered specimens from that area are the origin of the seed I found near Omamari. Nevertheless, considering the movement of oceanic currents, it is very likely that the western Northland beach morning glory occurrences derive from movement of the West Auckland Current. This is an offshoot of the Tasman Front (which is more of a zone of eastwards drift rather than a concentrated current) that is fed by the East Australian Current. The West Auckland Current is neither a strong nor consistent current; its intensity varies from year to year, and it can at times disappear entirely (de Lange et al. 2003). Although it has yet to be seriously studied, it is thought to be strongest during La Niña type weather patterns when it is pushed by north-west winds that are more common then, and weakest during El Niño weather when there are stronger south-west winds (W.P. de Lange, *pers. comm.* April 2012). Although the current rarely has an influence further south than the Manukau Harbour, during La Niña cycles it is believed to have a major impact on the near shore waters of Western Northland (de Lange et al. 2003), and as such seems the most likely contender for moving beach morning glory seed down that coastline, and possibly, also the establishment of that plant in New Zealand from eastern Australian sources. Irrespective of speculating on origins, the fact that viable seed of this tropical strandline species has been found as far south as Omamari is I think sufficiently noteworthy to warrant this short note. Hopefully by publishing this it

may stimulate further research into the occurrences and movement of the propagules of tropical strandline plants in northern New Zealand, which is something I feel is long overdue.

ACKNOWLEDGEMENTS

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