

A weeding trip on Raoul Island

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In August 2013, I embarked on a six month journey of a lifetime to the Kermadec Islands as a volunteer for the Department of Conservation. The ship ‘Brave Heart’ took five of us to Raoul Island, with the goal of finding and exterminating weed species. I was there until February 2014, but the paid staff continued with the campaign for an entire year. I knew I was in for an adventure from everything I had learned and heard about Raoul, but the gap between what you think it will be and what it actually is cannot be fathomed without embarking and plunging in with both feet. I found it a truly life altering experience (Fig. 1, 2).



Figure 1. Me, kitted out for Raoul Island weeding.



Figure 2. Me, in the crater area.

Those that were departing as we arrived took a moment to say what was most heartfelt in their minds—“be kind”—knowing only too well what isolation can do to a small team in an extreme environment. Before leaving,

1. 70a Seddon Street, Wallaceville, Upper Hutt.



Figure 3. Devastated forest in the crater area.

a close friend looked me in the eye and said “I know you have strength of character but Raoul will make you even stronger”. Being a ‘Raoulie’ is special. It is an opportunity to not only see the natural wonders (Fig. 3) but also to explore the depths of your own personality.

Teams before us have worked hard to eradicate the weed species on the hit list, so that now much of the grid searching encompasses days without a single find of five of the main eradication plants: black passionfruit (*Passiflora edulis*), purple guava (*Psidium cattleianum*), yellow guava (*Psidium guajava*), Brazilian buttercup (*Senna septemtrionalis*), and peach (*Prunus persica*). But the searching is necessary as we found new infestations in areas where they had not been before. When weeds are found they are invariably in very awkward to get to locations.

Much of the terrain is very steep (Fig. 4), almost vertical slips at times, with cyclone-ravaged massive pohutukawa trees, twisted and fallen, making progress slow and challenging. Pohutukawa (*Metrosideros kermadecensis*) is the dominant canopy species, with various subcanopy species beneath depending on altitude with regard to the clouds and life bringing water. In places of sufficient dampness, in the ravines or up high in the cloud layers, there are places where the Kermadec Island nīkau (*Rhopalostylis baueri*; Fig. 5) stands tall as the canopy, with young nīkau as the main understory and very few other species beneath them. It seemed unusual to me to see these stands high on the crater tops, having been used to seeing nīkau in low wet gullies on the mainland. It also seemed so unusual, and quite disturbing, to see the proliferation of *Ageratum houstonianum* and *Alocasia*



Figure 4. Steep terrain on Raoul Island.



Figure 5. Kermadec Island nikau, *Rhopalostylis baueri*.

brisbanensis, two garden escapes. On a positive note, since the eradication of the goats, the understorey species that were considered rare ten years ago, like *Coprosma acutifolia* and *Homalanthus polyandrus*, are now common.

The bush is dense and very hard to penetrate at times, even to the point of being unable to see any sign of my companion ‘weeders’ in fluorescent attire only 5 metres away. In places where there is a lot of *Homalanthus*



Figure 6. *Psilotum nudum* is common on Raoul.

polyandrus, something is attacking them and they have red-maroon cankerous-like spots. It is a magnificent plant all the same, and I hope they do not succumb to disease or fungal attack in the future.

My favourite plant is undoubtedly *Psilotum nudum* (Fig. 6). How is it that this ancient plant is so plentiful here? Another ancient plant *Tmesipteris lanceolata* was much less plentiful. Just an occasional find in damper places growing on *Cyathea* tree ferns. *Hymenophyllum demissum* is very common, while I have only seen what I thought was *H. flabellatum* by the Mahoe Hut; although it was sterile, it did have the distinctive yellow hairs on the

rhizome. On the way to the hut we found a poroporo, *Solanum aviculare*, and this was an important find because it is very, very rare on Raoul and was thought possibly lost. For those that may visit Raoul or already know it, the poroporo is not far from the huge five finger (*Pseudopanax kermadecensis*) tree you pass en route to the hut. The newly named fern *Lastreopsis kermadecensis* was present here too. Another find that excited me was seeing the two Orchidaceae species that are present on Raoul, *Microtis parviflora* and *Acianthus sinclairii*, growing in close proximity to each other in an area known as the “null plot BBO11”, which is a north facing spur at an altitude of about 80 metres. Only a handful of each species was present here and it was the only location that I personally saw them so they became quite special for me.

Raoul is a very special place and so are the people that give their time to manage this operation to make it possible for other special people to come to and partake in an ongoing effort to protect and sustain our natural environment. I feel personally very lucky to have been able to get a chance to explore this unusual and precious place.