

# The 2006 Banks Memorial Lecture: Cultural uses of New Zealand native plants

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In this talk I examine those plants essential to human survival in Aotearoa – those of importance to Māori before the arrival of Europeans, for food, clothing, shelter, and medicine. Despite all the knowledge that has been lost, there is a vast amount one could explore on any of these subjects. So this is a selective overview, once over lightly, but I hope enough to enrich your appreciation of our fantastic flora.

And because this presentation is a memorial to Joseph Banks, what better place to start than with his remarks on Cook's first voyage in 1769. Banks kept a good journal of his observations of New Zealand and its inhabitants. The *Endeavour* landed at just a few coastal areas – Queen Charlotte Sound and Admiralty Bay in the Marlborough Sounds, and in the North Island, Poverty Bay, Tolaga Bay, Mercury Bay on Coromandel Peninsula, Thames, and the Bay of Islands. These were all places long settled by Māori.

Banks and his colleague Solander collected 360 plant species, though only a few get a specific mention. And what grabbed his attention most was the plant that was a key to Māori survival – New Zealand flax, *Phormium tenax*, known to Māori as harakeke (Fig. 1). Banks had this to say:

“But of all the plants we have seen among these people that which is the most excellent in its kind, and which really [sic] excels most if not all that are put to the Same uses in other Countries, is the plant which serves them instead of Hemp and flax.”



Fig. 1 *Phormium tenax* 'Maeneene', a harakeke selected for its weaving properties. Photo: Sue Scheele.

And there's that word 'flax' being used which has caused no end of confusion since. Our New Zealand flax bears no relationship to the flax used in Europe or elsewhere, the perennial herb *Linum*, except that it also contains a similar looking fibre, extracted by vastly different processes and requiring different manufacturing techniques. So it is better, I think, to use the term 'harakeke'.

Banks went on to enthuse about the virtues of harakeke – the strength of the fibre used in fishing lines and cordage of all types; the silky, snowy white fibres used in fine clothing; the leaves split and tied to make vast fishing nets – and gave also the first hint of the flax industry to come by reflecting on what a great acquisition it would be to England.

We can't overestimate the importance of harakeke to Māori survival in Aotearoa. We know that the first settlers, around 1200 AD, came prepared for their new life, and brought their most valued plants with them, but most would not survive the cooler, more temperate climate. The main clothing plant was paper mulberry or aute (*Broussonetia papyrifera*), from which tapa cloth is made. It may have grown well enough to start with, in the warmer conditions

of that early period, but as the climate changed it all but died out. It was also inadequate for winter warmth. By the time Cook arrived, there were only a few plants left, with small pieces used for purposes such as ear ornaments for people of high status.

I can imagine the relief of those early settlers at finding the large acreages of harakeke, common in many places, especially as they experimented and exploited its properties. The very name harakeke comes from the proto-Polynesian, *fara* meaning *Pandanus* – the strappy leaved plant used for plaiting containers in Polynesia – and *keke* meaning strong. Strong pandanus, and so it was. With no pottery, Māori plaited containers of all sorts from the leaves, using techniques already familiar to them. Snares, fishing lines and nets, floor mats, and of course clothing, were also manufactured from this marvellous plant.

At first, these garments would have been plaited, not so comfortable to wear, but then Māori learnt to extract the fibre from the leaves (Fig. 2) to make simple garments. Over time, Māori developed techniques to produce cloaks of high quality – they soaked and dried the extracted fibre, rolled it into cords, hanked, and soaked it again, and beat it to soften.



Fig. 2 Traditional haro method of stripping fibre (muka) from harakeke leaves, using the sharp edge of a shell. Photo: Sue Scheele.

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Now, to make better cloaks, or fine kete (woven baskets; Fig. 3), you need better harakeke, not just any old bush growing out the back door. Harakeke is variable in form and also in its weaving properties – length, strength, sheen, ease of fibre extraction, and colour when dried. Māori selected bushes from wild stands that had desirable characteristics, divided off fans, and kept them in cultivation. Many of these cultivars or varieties are still known and grown today, and are highly valued by weavers (Fig. 4).



**Fig. 3** Examples of kete (woven baskets). Photo: Robert Lamberts.



**Fig. 4** Harvesting harakeke at Kaitiāia. Photo: Sue Scheele.

You'll read more of the virtues of harakeke later, but I'd like to share this quote from the missionary William Colenso, to whom we're indebted for recording a great deal of the natural history of New Zealand:

“On my arrival in this country... the Maoris would often inquire after the vegetable productions of England; and nothing astonished them more than to be told there was no harakeke growing there. On more than one occasion I have heard chiefs say, ‘How is it possible to live there without it?’ and ‘I would not dwell in such a land as that.’”  
*William Colenso 1892. Vestiges: Reminiscences: Memorabilia of works, deeds and sayings of the ancient Maoris. Transactions of the New Zealand Institute 24: p. 464.*



**Fig. 5 A–B** Kiekie (*Freycinetia baueriana*). Photos: Sue Scheele.



**Fig. 6** Harvesting kuta (*Eleocharis sphacelata*). Photo: Warwick Harris.



**Fig. 7** Tī kōuka, cabbage tree (*Cordyline australis*), growing in the foreground; tōī, the mountain cabbage tree (*Cordyline indivisa*) in the background. Photo: Geoff Walls.

There were, and are today, other important weaving plants. Next after harakeke is the *Pandanus* relative, kiekie, *Freycinetia baueriana*, an epiphyte that scrambles up trees and over banks, cursed by hunters, but loved by weavers for its pliability and whiteness (Fig. 5 A–B). It is often used for mats and fine kete. The reed kuta, *Eleocharis sphacelata* (Fig. 6), was and is also enjoyed for its pliability and softness. The cabbage tree, tī kōuka, *Cordyline australis* (Fig. 7), has a tougher leaf, not so much used today, but valued in early days for its strength and durability especially in seawater. The leaves were favoured for making anchor ropes and fishing lines, and sandals (Fig. 8) and leggings for traversing the high country, home of the painfully prickly speargrasses (*Aciphylla*) and tūmatakuru or matagouri (*Discaria toumatou*). Tī kōuka's relative, tōī, the mountain cabbage tree, *Cordyline indivisa* (Fig. 7), was a favourite for making rain capes.



**Fig. 8** Sandals made from tī kōuka (*Cordyline australis*). Photo: Sue Scheele.



**Fig. 9** Pīngao (*Desmoschoenus spiralis*). Photo: Geoff Walls.

The golden sand-binding sedge, pīngao, *Desmoschoenus spiralis* (Fig. 9), was and is valued for its toughness and decorative features. It was once common on the dunes before the mass planting of marram grass (*Ammophila arenaria*) but now joins the list of those plants in gradual decline.

Pīngao wasn't always a dune dweller. She once lived among the seaweed children in the realm of the Tangaroa, guardian of the sea. But one day she saw kākaho (flower-stalks of the toetoe, *Cortaderia*) dancing on the dunes and fell in love with this elegant creature. She begged Tangaroa to be able to leave the watery realm. Tangaroa was very reluctant but allowed her to go. Kākaho however was only interested in his own shape and form and ignored poor pīngao. Unable to make it back to the sea, pīngao was left stranded on the dunes, showered occasionally with spray by Tangaroa. Eventually the children of Papatuanuku intervened. They harvested pīngao and kākaho and united them in tukutuku panels on the walls of meeting houses.

Pīngao, like harakeke and tē kāuka, is highly variable in form, and there are particular forms – those with wider, longer leaves – which are preferred for weaving (Fig. 10). It reminds us that the *cultural* value of plants often lies *within* the species, just as in the modern horticultural world. And also that even if a species itself is common, such as harakeke, the valued forms may be very rare indeed. The concept of 'threatened plant' can have another dimension when people's interests are added to the landscape mix.



**Fig. 10** Pīngao hanging up to dry before being used for weaving. Photo: Sue Scheele.

Back to Banks and his other main observations, on foodstuffs. All of the early voyagers were hugely impressed by the gardens that they saw; the neatly cultivated hillsides of kūmara (Fig. 11), taro and yams, and the vines with gourds that climbed up dwellings and fences. All of these tropical plants were brought to Aotearoa from Polynesia. Māori developed various techniques

to ensure their survival from year to year, gardening with raised gravel beds and wooden or stone walls to retain heat, and developing underground storage chambers to overwinter the tubers in a warm, humid, environment. But even in the warmer northern regions, crops weren't always reliable. And in the South Island, even the growing of kūmara was very restricted.



**Fig. 11** Heritage kūmara cultivars. Photo: Graham Harris.

There was plenty of protein and oils available, with fish and birds; but finding a good source of carbohydrate among wild plants was another matter.



**Fig. 12** Bracken fern (*Pteridium esculentum*). **A**, stems and foliage. **B**, roots. Photos: Sue Scheele.

Again, Banks and others of the crew couldn't fail to notice the most important carbohydrate source, mounds of the rhizome of the common bracken fern, *Pteridium esculentum* (Fig. 12A). Bracken fern could grow anywhere and was a fast invader of sites disturbed by fire. The roots (Fig. 12B) contain a floury meal, between about 40% and 70% carbohydrate, in between the stringy fibres. The roots weren't eaten fresh. They were dried first

(and could be stored then), soaked, dried again, then roasted when required and beaten to reveal the pulp. Areas where the fernroot grew best, and provided the largest roots, were jealously protected. As with harakeke, there were many names to describe the different qualities of fernroot, attesting to its vital importance. Mostly, the roots were sucked and chewed, with the fibres spat out. Sometimes the meal was extracted from the fibres, rolled into cakes, and roasted. They could be kept this way and were often used as a food for travellers. Banks described the taste as having a "sweetish clamminess". We can note here that the shoots and raw roots are known to be carcinogenic, but the act of roasting in embers eliminates the cancer causing agents.

Another important source of carbohydrate was the young stem and fleshy rhizome of tī kōuka, *Cordyline australis* (Fig. 13), particularly in the South Island beyond the growing region of kūmara. In some areas, such as South Canterbury, tī kōuka was virtually cropped. Large parties cut down the trees, trimmed the stems, and left them to dry. The stems were later baked in huge pits, then flattened by beating, and carted back to villages for storage.



**Fig. 13** Longitudinal section through the stem of tī kōuka (*Cordyline australis*), showing the fibrous pith. Photo: Sue Scheele.

The sugary pulp extracted from the fibrous stems smells and tastes like molasses. Europeans were quick to use the plant for making that other life essential, alcohol, and the often fearsome brews were relished by whalers and sealers.

In the North, Māori cultivated a selected form of cabbage tree called tī para or tī tāwhiti. This unusual plant probably originated as a sport. It is short, with a rubbery,

pulpy stem, and thick green leaves that sprout at intervals up the stem. It suckers readily and forms lots of fleshy rhizomes. For years, it seemed to have disappeared, though recorded by the early naturalists. It was rediscovered in the 1990s after some good botanical sleuthing, being grown by gardeners as the cultivar *Cordyline* 'Thomas Kirk'<sup>2</sup> (Fig. 14). Recent and unpublished DNA work has put its origin as the central North Island and confirmed that it is indeed related to *Cordyline australis*.



**Fig. 14** Ti tāwhiti, a selected form of *Cordyline*. Photo: Warwick Harris.

Other roots also provided carbohydrate such as raupō, *Typha orientalis*, and the fleshy rhizomes of rengarenga, *Arthropodium cirratum*, which was probably cultivated. Like many plants, it grows larger in cultivation than in the wild.

Other good sources of carbohydrate were provided by the kernels of karaka, *Corynocarpus laevigatus*, and the drupes of tawa, *Beilschmiedia tawa*, and hīnau, *Elaeocarpus dentatus*. Karaka (Fig. 15A) were so highly valued that groves were planted near many settlements. And it is obvious when you see some of these groves today, that trees were specially selected for large fruit. Most of you will be aware that karaka kernels (Fig. 15B) are highly poisonous in their raw state. The outer ripe flesh can be eaten – to me it tastes like dates, someone else said a 'wizened quince' – but the kernels

require long cooking and soaking to detoxify them. Once processed however, the kernels can be dried and will keep a long time. The treated kernels have the food value of oatmeal.



**Fig. 15** Karaka (*Corynocarpus laevigatus*). **A**, tree with fruit. Photo: Geoff Walls. **B**, kernels. Photo: Robert Lamberts.

Tawa (Fig. 16) kernels were especially appreciated by inland tribes of the North Island, where tawa is often the dominant tree species and produces abundant fruit. The hard kernels were boiled, roasted or steamed. They could then be dried and would keep for years, just needing steaming to soften again. The flesh can be eaten but needs to be very ripe to lose a strong turpentine flavour.



**Fig. 16** Tawa (*Beilschmiedia tawa*). Photo: Geoff Walls.

With hīnau, it was the flesh of the drupe that was used. The fruit is plentiful and drops readily to the ground rather than having to be

shaken off or climbed for. The fruit was placed in a trough and pounded to dislodge the very hard stone, or sometimes soaked in water for a long time. The meal was rubbed off, made into cakes and steamed. A gruel could be made from the remaining meal attached to the stones, and was regarded as good invalid food.

"Kia whakaara koe i taku moe, ko te whatu turei a Rua" (when you awaken me from my sleep let it be for the purpose of eating the whatu turei a Rua – hīnau meal) – attesting to the fruits popularity.

Another valued source of carbohydrate and protein, particularly for travellers, was the pith of the mamaku trunk, *Cyathea medullaris* (Fig. 17 A–C), steamed or roasted in embers. The pith is also found in the frond stems, where it can be taken without killing the fern.



**Fig. 17** Mamaku (*Cyathea medullaris*). **A**, mature plant with tall trunk. **B**, cross-section of trunk. **C**, longitudinal section showing pith. Photos: Geoff Walls.

<sup>2</sup> Editors' note: see Harris, W. and Heenan, P.B. (1991). *Cordyline* 'Ti Tawhiti' and its relationship to *Cordyline* 'Thomas Kirk'. *Horticulture in New Zealand* 2: 2–5.

Another prized food was the fleshy bracts of the kiekie, which are indeed very luscious if you can get to them before the possums and rats. The flesh inside the fully ripened fruit segments can also be eaten.

The berries of many trees and shrubs were eaten, such as kahikatea, kawakawa, fuchsia, the coprosmas, bush lawyer, snowberries, mingimingi – though not as staples. The energy required to collect them in any quantity would limit their food value. They could serve as an important addition in feasts however.

As for greens, there were various plentiful herbs, the main one being pūhā, sow thistle, just as it is today. The native pūhā is *Sonchus kirkii*, prickly sow thistle; the more palatable introduced species, *Sonchus oleraceus*, quickly found more favour. We know that Cook gathered *Lepidium oleraceum* – now known as Cook's scurvy grass (Fig. 18) – by the boatload. There's no particular record of it being eaten by Māori, but is likely to have been just one of the many plants referred to as 'nau' – greens. The shoots of various ferns were also gathered.



Fig. 18 Cook's scurvy grass (*Lepidium oleraceum*). Photo: Geoff Walls.

One of the more unusual foodstuffs was the pollen of the raupō. Choosing a calm day, the heads were shaken onto mats; the pollen was made into cakes and steamed. Early reports suggest it was reminiscent of gingerbread.

There's no record of Māori making any particular beverage apart from the juice of the tutu, *Coriaria* (Fig. 19). We know that tutu is extremely poisonous, including the seeds. The bracts around the seeds however are not, and juice was expressed from them and strained very carefully through finely plaited kete. Sometimes a funnel was made of plaited tī kōuka, lined with

the fluffy heads of toetoe, and the juice filtered through.



Fig. 19 Tutu, *Coriaria arborea*. Photo: Jack Hobbs.

Sometimes people wonder how long it must have taken for Māori to have figured out these detoxifying techniques and how many people died in the process. But we need to remember that Māori did not just bring plants with them from the Islands; they carried knowledge of processes as well. These days, we're somewhat fearful of our environment. We don't have enough general knowledge of plants to immediately think of how they might be used, whether for food, clothing, medicine or whatever. Even though Māori faced a flora that contained many different species than those they knew, the whole attitude would have been one of exploration, and an assumption that plants were there to be used. Similarities would have been quickly seized on. For instance, Māori brought with them the tropical *Cordyline*, tī pore (the plant which has been recently rediscovered in Northland). So the prolonged cooking necessary to process tī stems was understood. Straining through fibres was used in the processing of coconut milk and in the preparation of kava. Taro and breadfruit were always pounded. Bitter yam was soaked for a long time to make it less acrid. Various fruits and nuts had to be soaked and baked for a long time to make them edible. And Helen Leach recorded that the term *tutu* was a Tahitian verb meaning to express juice from mati berries (*Ficus tinctoria*) to make scarlet dye; this usage may have been the origin of the Māori name.

So we're warm and fed. What about illnesses? Just as today, the main ailments were a product of diet and environment. We find a lot of treatments for constipation

(fernroot being a particular culprit), and for diarrhoea and urinary tract infections. Bronchial troubles were prevalent, perhaps a result of living in smoky environments. Skin complaints were very prevalent, such as boils, eczema, and scabies. And there were insect bites, fractures and wounds.

We need to keep in mind the Māori relationship to the natural world when considering the treatment of illnesses or injury. Both plants and humans are considered offspring of Tane, guardian of the forests. So trees and plants are living life forms, just like humans. In fact, they are senior relatives, tuakana, with a direct link to Papatuanuku (earth mother) and Rangi (sky father), and as such deserving of our respect. In traditional Māori medicine, an illness is seen as a disharmony between the person and nature, and ritual and karakia (incantations) are as important as the application of medicinal plants. These rituals would have been administered by a tohunga (priest or learned expert), skilled in both the spiritual and medicinal realms. Today, still, in rongoa clinics where Māori medicine is practised, ritual and karakia are important in the holistic healing process.

However, we can still talk in general terms about what plants were used for (and still are). Very many plants have some medicinal use, as shown in books like Riley's Māori herbal, which extends to over 500 pages. Here, we can only touch on a few of the important ones.

First up is our old friend harakeke, just as important in the traditional medicine cabinet as for its fibre uses. The decoction made from the boiled roots or lower butt of harakeke is a very effective, if very bitter, purgative. The roasted and pulped butts and rhizome are an effective poultice on ulcers and abscesses. The gel at the base of the leaves is a good antiseptic; in fact there is renewed interest in its use as a cover for wounds. The fibre provided good bandaging, and the strong lower leaves could be used as splints.

Koromiko, hebes, are renowned for their effectiveness in treating diarrhoea. Several of the growing

tips can be placed in the mouth, chewed, the saliva swallowed and the leaves spat out. It was used in Christchurch hospital during the Spanish flu epidemic and dried and sent to troops in Egypt in the 2nd World War. Although koromiko is strictly *Hebe salicifolia*, any hebe in the garden should have the same effect.

Not so well known in treating diarrhoea are the seed capsules of mānuka, *Leptospermum scoparium* (Fig. 20). They can be crushed, eaten, or a decoction made. The leaves make a wonderful tea. When tramping it's great to boil up the billy and plunge a stem of mānuka in. Don't leave for too long, no more than a minute, or it becomes bitter. It is a good diuretic. The pia manna, the honey dew on the bush, is regarded as a gentle laxative.



**Fig. 20** Mānuka (*Leptospermum scoparium*).  
Photo: Sue Scheele.



**Fig. 21** Kawakawa (*Macropiper excelsum*).  
Photo: Sue Scheele.

Another good tea is made from the leaves of kawakawa, *Macropiper excelsum* (Fig. 21). It is a tonic for coughs and colds. The leaves can also be chewed for toothache. It was used in steam baths for rheumatism and arthritis. Māori engaged in lots of heavy labour, digging, hauling canoes, and suffered the effects of bad backs. Kawakawa was also an important plant in rituals associated with birth and death. It's a good insecticide and was burnt around kūmara crops so that the acrid smoke would kill kūmara pests.



**Fig. 22** Kōwhai (*Sophora tetraptera*).  
Photo: Jack Hobbs.

Kōwhai, *Sophora* (Fig. 22), is a star of the medicine cabinet, and a decoction of the bark is a great wound healer. It is poisonous to a degree, though not as much as indicated during the furore some years back over kōwhai being grown in kindergarten gardens.

The sap of the peppery horopito, *Pseudowintera colorata* (Fig. 23), was used for skin diseases, and the leaves boiled as an infusion for bronchial complaints. Interestingly, modern research has shown horopito to be a very effective antibiotic against *Candida*, thrush, but only the species *P. colorata*, not *P. axillaris*.



**Fig. 23** Horopito (*Pseudowintera colorata*).  
Photo: Geoff Walls.

Another plant which has shown up well in current research is patē or seven-finger, *Schefflera digitata*. The sap was used for scrofulous sores and ringworm. And indeed, it's been shown that the active ingredient, falcarindiol, is very specific in the treatment of ringworm.

Karamū, *Coprosma robusta*, was used in many ceremonies. This may reflect its relationship to species growing in the Pacific, where it may have played a ritual

role in pre-migration times. It was widely used in steam baths, and as a diuretic. A decoction of the inner bark is said to stop vomiting.

Poroporo, *Solanum* (Fig. 24), leaves were boiled and used as a healing salve for skin diseases. More recently it was cropped, and its active ingredient, solasodine, used as a starter in contraceptives. But our local industry folded in part through competition from the Mexican yam, also able to be used, and produced more cheaply.



**Fig. 24** Poroporo (*Solanum laciniatum*).  
Photo: Roy Edwards.

Another well known medicinal plant is kūmarahou, *Pomaderris kumeraho*, or gum-diggers' soap (Fig. 25). As its name suggests, the flowers when crushed and mixed with a little water create a soapy lather. However, it is best used by drying the flowers and leaves and making an infusion to treat bronchial complaints such as asthma. It is still widely used today in the northern areas where it grows widely.



**Fig. 25** Kūmarahou (*Pomaderris kumeraho*).  
Photo: Jack Hobbs.

A useful plant in the war against irritating sandflies and mosquitoes is the ngaio, *Myoporum laetum* (Fig. 26). The juice from the bark and leaves has long been used as a repellent. Though it seems the fact that we are plagued by these insects is our fault anyway. A Ngā

Puhi story says that a certain chief employed hordes of mosquitoes and sandflies to help haul a newly made canoe from the forest to the water's edge. When it came to kai time, the chief fed his human workers but neglected the insects. Annoyed by this lack of hospitality, the mosquitoes and sandflies vowed that henceforth they would attack humans, something they'd never done before. As well as an insect repellent, the bruised and warmed leaves are also an effective agent in drawing septic wounds.



**Fig. 26** Ngaio (*Myoporum laetum*).  
Photo: Roy Edwards.

Massage was, and is, part of the Māori repertoire for dealing with muscle aches and strains. The fine oil expressed from the tītoki, *Alectryon excelsus*, fruit was rubbed on after the patient had a steam bath. The oil was also scented by putting fragrant grasses, mosses and leaves in it. Little fragrant sachets were thus made and worn around the neck.

Māori were fond of using fragrant plants in this way. The sap of the tarata or lemonwood, *Pittosporum eugenioides*, was used, as was mānuka, and the lovely raukawa, *Raukawa edgerleyi*. The speargrass (Fig. 27), taramea, made up for its prickliness by exuding a delicious scent. Dry grass was lit under the plant causing the sap to exude from the leaves where it was collected. Mokimoki, a fragrant fern, *Microsorium scandens*, was also a popular constituent of sachets.



**Fig. 27** Speargrass (*Aciphylla aurea*).  
Photo: Geoff Walls.

A common native grass called kāretu, *Hierochloa redolens* (Fig. 28), was widely used for its scent. It was woven into belts, and Banks recorded seeing women wearing

strands of it as a skirt. The leaves were strewn under sleeping mats, and also soaked in oil and put into sachets. The fresh leaves don't smell, but as they dry they become stronger and stronger in scent; I think rather like coconut. It was widespread, but is very palatable to stock so is now usually found on protected land.



**Fig. 28** Kāretu (*Hierochloa redolens*).  
Photo: Sue Scheele.

We've found ourselves going from medicines to scent. In considering plants which were vital to human survival in Aotearoa, it seems a good idea to finish with such plants as these, that lift the human spirit, a vital component of good living. Apart from scent, early Māori were appreciative of the aesthetic values of plants, particularly enjoying those with red flowers. The kakabeak, *Clianthus* (Fig. 29), was often to be seen cultivated in villages, and is one of the few plants that doesn't seem to have any particular medicinal value; it was grown because it was beautiful. Similarly, recent DNA work has showed patterns of genetic relationship among some populations of the lovely napuka, *Hebe speciosa* (Fig. 30), indicating pre-European Māori dispersal and cultivation. A population in the Marlborough Sounds is of the same population as that grown in the Hokianga, where an early European botanist wrote of being shown patches of the plant by locals.



**Fig. 29** Kakabeak (*Clianthus maximus*).  
Photo: Jack Hobbs.



**Fig. 30** Napuka (*Hebe speciosa*).  
Photo: Jack Hobbs.

This presentation was given in association with the New Zealand Gardens Trust conference, with the theme of 'maintaining the magic'. For me, part of the magic of plants is knowing about the human stories and experience associated with them. I hope this brief overview has enriched your understanding and perhaps encouraged you to uncover more of the information that's out there on our own special flora.

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