

across the Southern Alps to the driest parts of Central Otago. Incidentally Nepal is about the same shape and size as the South Island of New Zealand. On the fourth day we climbed up to Ghorapani Pass through tall *Rhododendron* trees with an understorey of sweet smelling *Daphne* bushes. There had been a recent snowfall and the *Daphne* flowers looked cute peeping out from under a thick layer of dry powder snow. During the trek we saw Himalayan oaks, pines, firs, cedars (deodara), magnolias, poplar and juniper trees.

Where not under cultivation, the ranges are usually forested between about 7000 ft and 13000 ft. In the more open places, numerous primulas were in flower as also was a small blue gentian, a bright yellow jasmine, saxifrage and some cushion plants etc. The northern regions produced only sparsely scattered vegetation and some spiny plants typical of arid conditions. At intervals along the trail, the locals had planted one or two Banyan or Peepal trees (figs) and shade trees for porters and usually alongside a raised rock platform on which to place their heavy loads. We were too early for most alpine flowers but had we delayed the trek we would have had to put up with summer monsoon clouds which obscure the high peaks and the irritation of blood-sucking leeches which appear in wet weather. As we were on the move almost every day we did not have the time, nor indeed the knowledge, to positively identify many plants and a botanist or horticulturist conversant with Himalayan plants would have been a welcome addition to our party. However as Phil Gardiner of Avenue Nurseries, Levin said before we left New Zealand that while we would enjoy very much looking at the vegetation and magnificent mountain scenery "what would take us to town" would be meeting the friendly people of Nepal and observing how they coped with life in their primitive mountain villages. And so it proved to be.

The 23 members of the party were

Miss Alison Andrews	Mrs Erna Hurst	Mr Stan Muirson
Mrs Minnie Barr	Miss Agnes Hutson	Mrs Enid Powell
Mr Kingsley Brown	Mrs Phyllis Hynes	Mr Ian Powell (Leader)
Mrs Iris Coulter	Miss Heather Jardine	Mrs Margaret Robertson
Mr Jack Coulter	Mr Tom McArthur	Mr Harold Stimpson
Mr Frank Fitzgerald	Mr Gilbert Mabin	Mr Arthur Thompson
Mrs Iris Gittings	Miss Ruth Mason	Mrs Doris Thompson
Mr Ken Gittings	Dr Isobel Morice	

Pennantia 'Otari Debut'

*R H Mole*¹

The incidence of just one plant of a species occurring within a sizable bush area is not, in itself, a rare occurrence. For example, it would seem that at least four examples of this phenomenon occur within the 80ha Otari Native Plant Museum, relating to pokaka (*Elaeocarpus hookerianus*), maire tawake

1. Otari Native Plant Museum, Wellington 5.

(*Syzygium maire*), kamahi (*Weinmannia racemosa*) and wharangi (*Melicope ternata*). In the nearby Khandallah reserve, only one plant has ever been found of hutu (*Ascarina lucida*). I suppose the ultimate example in this scenario is when there is only one plant of a species to be found in the whole of the New Zealand botanical region. An example of this phenomenon exists in the form of *Pennantia baylisiana* on Great Island of the Three Kings group, situated some 50km north of North Cape. Once part of a low canopy forest, the remaining tree escaped the depredation caused by goats in the 1930's and early 1940's.

In nature, *Pennantia baylisiana* is a small tree 3-4 metres tall growing on a rocky slope, exposed to the elements. Its sizable leaves (c.250 × 150mm) are dark, glossy green and tend to be confined to the tips of the branchlets, the latter bearing conspicuous lenticels (Fig. 1). Small, creamy white flowers are borne plentifully in panicles.

This sole remaining tree is female and in the absence of any male trees of *P. baylisiana*, or indeed any related species, it produces no seed. However, in recent times, cutting material has been propagated from the tree. In 1973, thanks to the generosity of Messrs. Duncan & Davies Ltd, a 0.6m tall, healthy specimen was donated to Otari.

Currently 4m high by 5m wide, the Otari tree has thrived and, in recent years, has not only flowered, but has set much fruit. The fruits are elliptic c.10mm × 6mm. Under local conditions ripening, to become purplish black, has been very uneven and occurs with individual fruits in say, a cluster of 15-20, over a period of several weeks. Some fruits remain green and fall off.

On 17th July 1982, 50 ripe seeds were sown and on 25th October 1982 germination was apparent. Optimistically, it was hoped that pollination had occurred from male pollen on *P. baylisiana*. Subsequent observation and analysis of the seedlings at Victoria University, Wellington, proved the progeny to be of hybrid origin *P. baylisiana* × *P. corymbosa*. *P. corymbosa* (kaikomako) occurs naturally in the bush at Otari and it would seem correct to say that this is the first recorded natural cross of these two species in New Zealand.

In view of this event it is appropriate to call the progeny *Pennantia* 'Otari Debut'.

Five seedlings, planted out in June 1983 at Otari, are now just over 3 metres tall and still growing vigorously. Their leaves are midway in size between the parents, but are more typical of kaikomako in shape and texture, being toothed or lobed and somewhat thin (Fig. 2). Thus far, in form, the hybrid differs markedly from the parents, having two or three leaders and being more or less columnar. The first flowering on the young plants occurred October/November 1988. Only one plant out of the five hybrids has flowered thus far. It produced only male flowers.

Dr Ross Beaver of Mt Albert Research Centre, Auckland, has obtained limited fruit set on another of the original Duncan & Davies cuttings. In this instance, no *P. corymbosa* plants are present in the vicinity and the rare fruits obtained have produced seedlings true to type. They have not yet flowered, but, if any prove to be males, there is the exciting prospect of re-establishing a viable population on the Three Kings Islands.

It is good that horticulture can and does help the interests of conservation in New Zealand.



Fig. 1. Foliage of *Pennantia baylisiana*.



Fig. 2. Foliage of *Pennantia* "Otari Debut" (*P. baylisiana* $\times$ *P. coymbosa*).