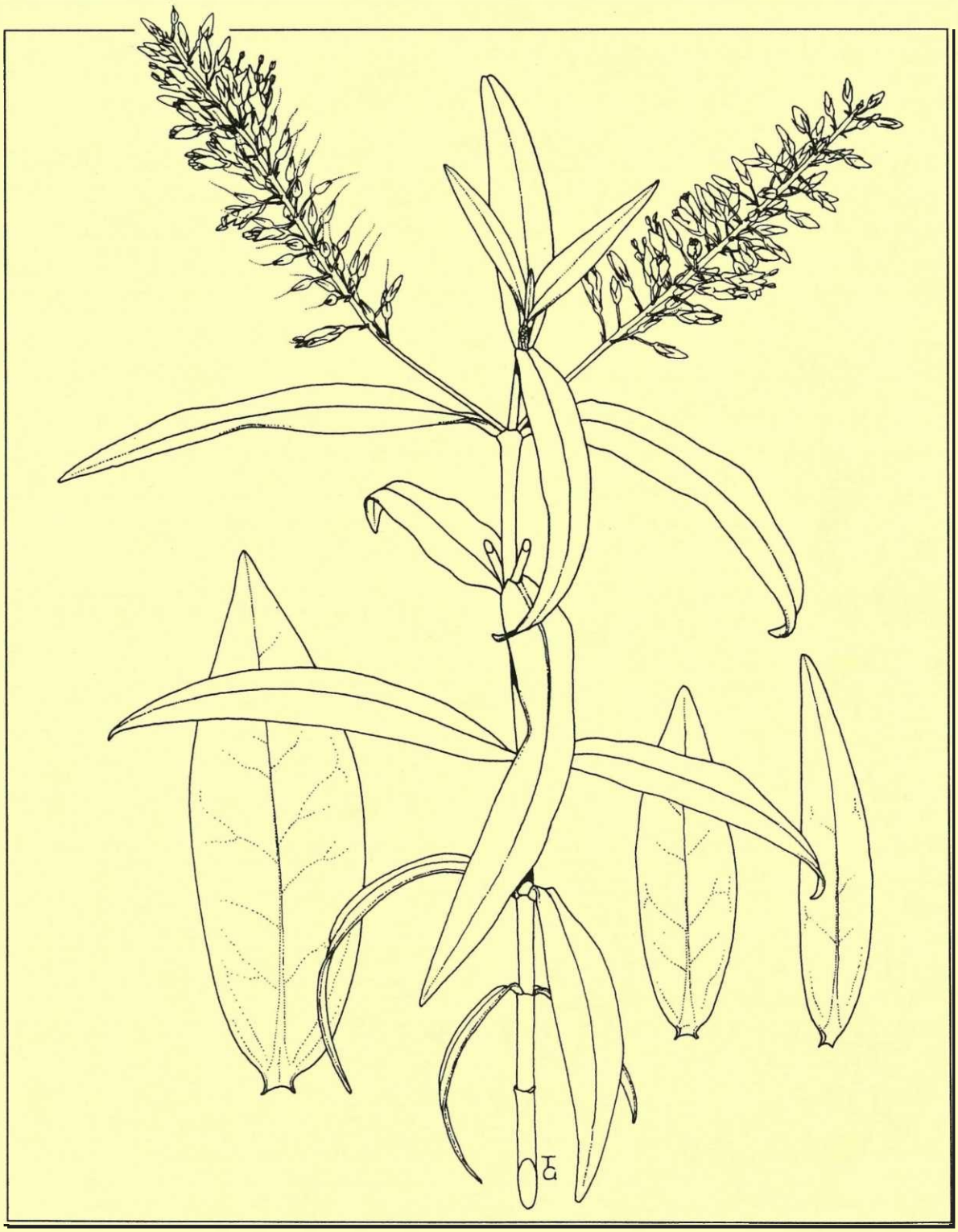
NEW ZEALAND BOTANICAL SOCIETY

NEWSLETTER

NUMBER 24 JUNE 1991



NEW ZEALAND BOTANICAL SOCIETY
N E W S L E T T E R
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Hebe 'Unuwhao', centre: habit Te Paki Race; left: long and fat leaf type, Tarure Hill; second from right: short and fat leaf type, The Pinnacle; right: long and narrow leaf type, Pinnacle Ridge. (Illustration by Tim Galloway)

New Zealand Botanical Society

President:	Dr Eric Godley
Secretary/Treasurer:	Anthony Wright
Committee:	Sarah Beadel, Wendy Nelson, Colin Webb, Carol West
Address:	New Zealand Botanical Society C/- Auckland Institute & Museum Private Bag AUCKLAND 1

Subscriptions

The 1991 ordinary and institutional subs are $12. The 1991 student sub, available to full-time students, is $6.

Back issues of the *Newsletter* are available at $2.50 each - from Number 1 (August 1985) to Number 23 (March 1991). Since 1986 the *Newsletter* has appeared quarterly in March, June, September and December.

New subscriptions are always welcome and these, together with back issue orders, should be sent to the Secretary/Treasurer (address above).

Subscriptions are due by 28 February of each year for that calendar year. Existing subscribers are sent an invoice with the December *Newsletter* for the next year's subscription which offers a reduction if this is paid by the due date. If you are in arrears with your subscription a reminder notice comes attached to each issue of the *Newsletter.*

Deadline for next issue

The deadline for the September 1991 issue (Number 25) is 26 August 1991.

Please forward contributions to:

Dr Wendy Nelson, Editor
NZ Botanical Society Newsletter
C/- National Museum
PO Box 467
WELLINGTON

New Zealand Botanical Society News

■ Loder Cup Committee

The Minister of Conservation, Hon. Denis Marshall, has appointed Dr Carol West to be a member of the Loder Cup Committee for a three year term ending 31 March 1994.

The Cup was presented to the late Gerald W. Loder - afterwards Lord Wakehurst - of Sussex, England, in 1926, to lovers of nature in New Zealand for annual competition. The award is made to any properly nominated person or organisation who, or which, is considered by the Committee to have excelled all other nominees at furthering the objects of the donor of the Cup. Thus the Cup is "offered to lovers of nature in New Zealand to encourage the protection and cultivation of the incomparable flora of the Dominion".

As a result of the New Zealand Botanical Society showing interest in the Loder Cup, the Society was invited to nominate a representative to sit on the Loder Cup Committee. Carol West was duly nominated, and we offer our congratulations on her subsequent appointment.

Anthony Wright, Secretary NZBS, C/- Auckland Institute & Museum, Private Bag, Auckland

Regional Bot Soc News

■ Auckland Botanical Society

Our AGM was held on Wednesday 6 March 1991. The following officers and committee were elected:

President:	Anthony Wright
Vice-Presidents:	Ross Beever, Ewen Cameron, Barbara Segedin
Secretary:	Sandra Jones
Treasurer:	Vivienne Paterson
Committee:	Catherine Beard, Shirley Bollard, Helen Cogle, Anne Grace, Jack Rattenbury, Maureen Young

The 1991 subscription was set at $16 (ordinary), $24 (family/couple), $8 (student).

Programme, mid-June-September 1991

Saturday 15 June:	Mt Tamahunga, Omaha State Forest (near Warkworth)
Wednesday 3 July:	Annual pot luck dinner
Saturday 20 July:	Spraggs Bush, Waitakere Range, west Auckland
Wednesday 7 August:	Mosses (Jessica Beever)
Saturday 17 August:	Chatswood Reserve, North Shore
Wednesday 4 September:	LUCY CRANWELL LECTURE - Colin Webb
Saturday 21 September:	Motukaraka Island (Flat Is.), Beachlands, south Auckland

Sandra Jones, Secretary, Auckland Botanical Society, 14 Park Road, Titirangi, Auckland 7 (ph. 09 817-6102)

■ Wellington Botanical Society

Programme mid-June - September 1991

Monday 17 June: Members' Evening - pot luck dinner followed by slides shown by members of their recent trips.

Saturday 6-Sunday 7 July: Manawa Karioi - Taputeranga Marae - a working bee and overnight stay to help the Manawa Karioi forest project.

Monday 15 July: International perspectives on Plant Conservation and the role of herbaria - Rob Smith, Victoria University

Saturday 3 August: Victoria University grounds - Rob Smith

Monday 19 August: AGM; Die-Back in Cabbage Trees - Philip Simpson, Department of Conservation

Saturday 7 September: Natural History Unit, National Museum - Patrick Brownsey

Monday 16 September: Tundra to Tropics; Wetlands to Waterless Lands - Gill Rapson, Massey University

For further information or details of meeting places, times or field trips please contact:

Carol West, 9 Mamari Street, Rongotai, Wellington 3 (ph. 04 878-398)

■ **Nelson Botanical Society**

The past few months have seen some good field trips with attendances about the 20 mark. The vehicle trip to the summit of Mt Murchison provided an excellent and rare opportunity for many of our less able members to visit an alpine herbfield and was greatly appreciated by all. The vegetation though yielded little of special interest.

The trip to the Dew Lakes yielded many of the specialists of the ultramafic belt. In the lowland part of the track they included *Olearia* "serpentina", *Colobanthus* "Red Hills", *Pimelia suteri, Chionocloa defracta* and *Carex devia*.

Near the edge of the red beech forest we saw the root parasite *Exocarpus bidwillii* and the sharp eyes of Jean Espie spotted quite a population of the uncommon stem parasite, *Korthalsella salicornioides* scattered on rather scruffy kanuka.

Further on in the forest we encountered the unusual primitive parsley fern *Botrychium australe* and at the lunch stop in another area where the ultramafic rocks were close to the surface the shrubland was dominated by the dense, low *Pittosporum rigidum* with occasional porcupine scrub *(Melicytus alpinus).*

After lunch we entered forest again. Initially rata was quite common in the ultramafic forested areas. In this area the local forest tussock *Chionochloa cheesemanii* was quite abundant. Then suddenly we were out in a small clearing at the first of the Dew Lakes. The vegetation around the lake was typical of many alpine tarns. The reflections of cedar in the lake were spectacular with several smaller ponds visible through the low open forest. Further through, the area opened out into a typical ultramafic bald containing only scattered low shrubs such as *Pimelia suteri* and herbs such as the almost black *Celmisia gracilenta*.

Our 1991 Annual General meeting was held on 23rd April. With a steadily increasing membership, 50 newsletters are now being distributed each month. A brief election was held reaffirming our current management quartet; Graeme Jane (Chairperson), Jocelyn Tilley (Secretary), Julie McLintock (Camp organiser), and Shannel Courtney (Newsletter Editor).

The Easter weekend camp in the Cobb Valley covered quite a lot of ground. On the first day the trip was to Ruby and Diamond Lakes. The coprosmas in the alpine shrublands were heavily laden with fruit and provided many good photo opportunities, as well as providing a smorgasbord of flavours.

The next day was a rest day. In the morning we visited the chert quarry above the lake. The most interesting area here was a stand of cedar forest, shrubland containing abundant *Lycopodium varium* amongst stunted manuka and abundant *Epacris alpina*. During the morning we encountered five lycopod species and many other familiar plants.

After lunch we visited the magnesite quarry. Here Jean Espie found *Hymenophyllum pulcherrimum*, a rather rarely seen plant, amongst a group of large rocks along the road. To finish the afternoon we wandered around the Alpine Garden near the lake. Sadly this is now showing signs of neglect. It does

provide a good opportunity for many people to see many of the common plants of the valley as well as some of the special ones of the area such as *Pittosporum patulum* and *P. dallii.*

Sunday was a drizzly day. The morning was spent near Trilobite Hut exploring the lowland herbfields and after lunch we traversed the first segment of bush and spent a lot of time sorting out the divaricating shrubs.

On Monday we met up with Tony Druce and his party of five to climb Mt Mytton. It is spectacular scenery. A tea break was taken in a red tussock clearing in the upper basin dominated by the grey indurated limestone of Mt Mytton on one side and the red volcanics of Mt Peel on the other. Later we climbed through the forest and along a cliff garden on the limestone. There were huge plants of *Ranunculus insignis* and hanging bunches of *Elymus* "glaucous" and *Trisetum* "cliff". After a climb through a narrow gully we came out on the upper karst field of jumbled rocks and abundant *Aciphylla glaucophylla* and scattered *Traversia baccharoides*. Nearer the summit we encountered the orange *Hebe ochracea* in more open grassland. The final view from the summit gave a panorama of the valley and deep into NW Nelson. But perhaps the most striking feature of the summit was the abundance of introduced grasses and clover here at over 1500 m.

June:	about town - Gardens
July:	Hori Bay
August:	Covenants - Martin Conway
September:	Maitai Caves

Graeme Jane, 136 Cleveland Terrace, Nelson

Other News

■ Koiata Botanical Trust

The Koiata Botanical Trust was established in 1988 after an anonymous donor provided a generous grant for the Trust. Koiata is a Maori verb meaning "to throw up a new shoot". The objectives of the Trust are "to educate the public of New Zealand regarding the vegetation and flora of New Zealand by financially supporting a scientist or scientists in botanical research in New Zealand and in educating the public of New Zealand in the knowledge gained by such research by publication of the research and lectures". In meeting these objectives preference is given by the Trustees to financially supporting a scientist who is otherwise unemployed.

The Christchurch based Board of Trustees consists of three Trustees; Dr Colin Webb (DSIR Land Resources) the current Board Chairperson, Philippa Horn (Lincoln University) and Dr David Norton (University of Canterbury). The Trust has been fortunate to have received some further financial support from donors which has enabled it to improve slightly its financial base. The present funding base allows the Trust to support one person on a half-time basis.

The first recipient of the Trust's grant is Hugh Wilson, a free-lance Canterbury botanist. Hugh's work on the flora of Mount Cook National Park, Stewart Island and now on Banks Peninsula is widely known and respected. The Trust's grant for three years is enabling Hugh to continue with his botanical work. Over the last two years Hugh has made considerable progress with several projects funded by the Trust, as well as giving numerous talks, conducted walks and providing a number of other botanical services to the public.

Preparation of a field-guide to the small-leaved shrubs of New Zealand, in conjunction with the Canterbury Botanical Society, has been a major project funded by the Trust and is now close to completion. The field guide, with drawings by Tim Galloway, will provide an essential aid in sorting out the multitude of small leaved woody plants that abound in New Zealand. The field guide includes all small-leaved shrub species (including small-leaved juveniles such as matai) in New Zealand. Each species is described in detail and accompanied by drawings including detailed enlargements of important diagnostic features such as stipules in *Coprosma*. Detailed notes on distribution are provided and a key to all species will be included. Publication of the field guide is planned for late 1991.

Other projects that Hugh is involved in include a revision of the Mount Cook field guide and work on the flora of Banks Peninsula. Revision of the Mount Cook field guide involves redrawing a number of species,

as some of the original drawings were unfortunately lost. The Banks Peninsula work has not progressed as fast as Hugh had hoped due to the demands of the small-leaved shrub and Mount Cook field guides. This book will differ from Hugh's earlier field guides in having a more ecological flavour and an historical perspective, as well as being a guide to species identification. It will be aimed at a public rather wider than previously. With Koiata funding, Hugh has also established a series of plots and photo-points for long-term vegetation monitoring at Hinewai Reserve, Banks Peninsula. These are allowing detailed study of vegetation change as the reserve gradually returns to a more natural state after many years of farming and are already showing the tremendous benefits resulting from removal of grazing animals. The Trust is delighted with the progress that Hugh is making on these projects.

Koiata Botanical Trust is now well established, but its continued viability is dependent on improving its financial base. Although the Trust has benefited from a number of generous donors, falling interest rates mean that larger sums of money are necessary to support the work that people like Hugh Wilson are doing. Any donations towards the work of the Trust are very gladly received. The registered office of the Koiata Botanical Trust is C/- Mr C A Hooker, Secretary/Treasurer Koiata Botanical Trust, PO Box 22414, Christchurch.

David Norton, School of Forestry, University of Canterbury, Christchurch 1

■ DSIR Publishing

The review of DSIR Journals has been completed with favourable results. The management of the six DSIR journals will be transferred to The Royal Society of New Zealand by 30 June 1992. These journals will be funded, in part, from Government funds as a payment on behalf of the Crown to the Royal Society on contract to the Ministry of Research, Science and Technology. This funding will be up to the level currently received and will be for a period of three years initially, after which time the contract will be reviewed. The contract will contain specific performance requirements.

Transitional issues are being negotiated now. As a first step, DSIR Publishing will relocate to Science House at 11 Turnbull Street, Thorndon by 1 July 1991. Transfer of assets, including staff, will be completed by 31 December 1991 at the earliest and 30 June 1992 at the latest.

Carol West, Editor, New Zealand Journal of Botany, DSIR Publishing, Box 9741, Wellington

Current Research

■ *Hebe* **'Unuwhao': Notes on its distribution, ecology and conservation status**

INTRODUCTION

Hebe 'Unuwhao' (cover illustration) is one of a growing number of previously unrecognised distinctive *Hebe* species. Discovered by Mark Bellingham (pers. comm. 1991) in January 1985 during a traverse of the Unuwhao Bush near Spirits Bay, the species was originally confused by Bellingham with the North Cape *Hebe 'brevifolia'* (*H. macrocarpa* var. *brevifolia*) because the specimens were not in flower. When the cutting-grown plants produced violet-white flowers, it was obvious that this was a different species. Bellingham's specimens had come from The Pinnacle, and in November 1986 Colin Ogle (pers. comm. 1991) discovered another population at Tarure Hill, on the south-eastern edge of the Unuwhao Bush. Since then there have been a number of conflicting reports about the species abundance and appropriate threat status; its IUCN ranking is 'endangered' (Given 1990).

During April 1991, Tony Silbery (Percy's Reserve, Petone), Mike Aviss (DoC, Northland), Tim Shaw (DoC, Northland) and Peter de Lange (DoC, Science & Research) surveyed the Unuwhao Bush to determine the true extent and condition of the species at Te Paki.

Although previously considered a Te Paki endemic, specimens of a *Hebe* gathered by the author in 1980 from the Kawhia Harbour (38°S, 174°E) have recently (May 1991) been identified as a distinct race of *H.* 'Unuwhao' (A P Druce pers. comm. 1991). This is another example of a disjunct species, as c. 450 km separates the localities. This is a summary of our results and an update of information on the species distribution, population size and variation. I also revise the current IUCN threat status.

TE PAKI POPULATIONS OF *HEBE* 'UNUWHAO'

At present all Te Paki records of *Hebe* 'Unuwhao' have come from the Unuwhao massif, a massive, twisted block of conglomerate rock uplifted and tilted to the south-west. Extensive erosion has left a series of steep-sided ridges reaching a maximum elevation of 305 m. These ridges are mainly vegetated in a sparse short scrub dominated by kanuka (*Kunzea ericoides* var. *lineare*). Within this area, four main populations of *Hebe* 'Unuwhao' were discovered, all on east-facing cliffs of hard conglomerate. In addition, a single goat-browsed sapling was discovered on Tarure Pa. Because of the precipitous habitat a comprehensive survey was not possible. nevertheless, we counted 600 individuals for the two main Pinnacle ridge populations, 10 plants near Unuwhao Pa, and 84 on Tarure Hill.

Goats were liberated in the Unuwhao Bush in the late 1980s. However, none of the *Hebe*, aside from the single specimen at Tarure Pa, showed obvious signs of goat browse, although many were affected by the depredations of an unidentified green caterpillar. Goats still pose a threat, and DoC Northland Conservancy Staff have just completed a successful eradication programme. There was no evidence of possum damage.

Hebe 'Unuwhao' was restricted to east-facing cliffs and scrub along the cliff tops. Plants were seen most commonly amongst *Astelia banksii* or in vertical joints, sites which are more likely to retain water for longer periods during droughts. The tendency to occupy east-facing cliffs may also be a response to drought, as they are shaded during the hottest part of the day. Another possibility is that the cliffs are less exposed to the winds which, since the sea is so close, probably have a high salt content.

Specimens usually had a low, lax, branching habit, typically forming a bush wider than tall. Only in scrub or shade were they higher than a metre. Morphologically, three leaf types could be distinguished in all populations examined. These comprised 'long and fat', 'short and fat' and 'long and narrow' (refer cover illustration). The 'long and fat' type was the least common; most were at Tarure Hill and corresponded exactly with the form gathered by Ogle in 1986. Both 'short and fat' and 'long and narrow' were common at the other three sites, the latter being conspicuous as the only form still in flower. Flowering times of wild plants differ significantly from those of cultivated specimens. While cultivated plants are late

autumn-midwinter flowering, those at Unuwhao appear to flower from spring to late summer. Voucher specimens from all four sites surveyed have been deposited at CHR (Botany Institute, DSIR - Land Resources).

KAWHIA POPULATIONS OF *HEBE* 'UNUWHAO'

An accurate assessment of the Kawhia race of *Hebe* 'Unuwhao' will require more field work. Kawhia plants were collected first from Urenui Rock, Tiritirimatangi Peninsula by the author in 1980 as *Hebe macrocarpa*. Voucher specimens of these early collections can be found in the Te Kauri Lodge Herbarium of the Hamilton Junior Naturalist Club (Inc). However, WAIK (Herbarium, Waikato University) 4840 and 4841 gathered from Urenui in 1985 represent the form present in cultivation at Percy's Reserve, Petone.

As with Te Paki 'Unuwhao' the Kawhia race is essentially a cliff dweller. It is rather locally distributed along the southern side of the Kawhia Harbour. Plants have been discovered on limestone, calcareous sandstone, ignimbrite and basalt and grow in association with *Hebe macrocarpa, H. stricta* var. *stricta, H. stricta* var. *macoura* and at one site with *H. pubescens* and *H. obtusata*.

Morphologically the Kawhia race is more variable than Te Paki 'Unuwhao'. It differs in its yellow-green foliage, larger, more in-rolled leaves, smaller ciliolate racemes, rounded corolla lobes and autumn-winter flowering habit (both in cultivation and the wild). This probably justifies the plant's recognition as a distinct variety of *H.* 'Unuwhao'.

The status of these Kawhia plants requires further study. In the interim, a rapid survey carried out by Liz Humphries (DoC Waikato), Gillian Crowcroft (University of Waikato) and the author, located c. 300 plants scattered between three main localities on the southern side of the Kawhia Harbour. Voucher specimens from Kawhia have been lodged at CHR.

THREAT STATUS OF *HEBE* 'UNUWHAO'

Te Paki

While the total area occupied by the *Hebe* is small, it is not adversely threatened because the species inhabits cliff faces free from herbivorous mammals (except possum) and from most other forms of habitat disturbance. For these reasons 'endangered' is probably no longer a suitable ranking and the species should be ranked as 'rare'. This is provided regular monitoring of some of the key populations is carried out because we are still uncertain about the species' palatability to possums, which are now well established in parts of Te Paki and likely to increase their range in the next few years (T. Shaw pers. comm. 1991). Should the species prove palatable, a reconsideration of the ranking will be necessary.

Kawhia

Critical comparison of Kawhia plants with those from Te Paki is still required. In particular, chromosome numbers for both entities need to be determined. Further field work is required to determine the distribution and relationship of this *Hebe* to other entities recorded from Kawhia, including *H. macrocarpa*. Until such research is carried out, it is inappropriate to rank the Kawhia race of 'Unuwhao' any further.

ACKNOWLEDGEMENTS

I would like to thank Tony Druce and Bruce Clarkson for their helpful comments on the taxonomic status of Te Paki and Kawhia races of *Hebe* 'Unuwhao'. Mark Bellingham, Colin Ogle, Ewen Cameron and Tony Silbery all helped unravel the complexities of who found *H.* 'Unuwhao' first and where.

REFERENCE

Given, D.R. (Compiler). 1990. Threatened and Local Plant Lists - New Zealand Botanical Region (Vascular Plants). September 1990 Edition. Botany Institute, DSIR Land Resources, Christchurch, N.Z. Pp. 36

P.J. de Lange, Science & Research Division, Dept of Conservation, PO Box 10-420, Wellington

Fieldwork

■ Field observations on *Cordyline* dieback

The car journey from Christchurch to Ti Point in Northland for our annual camping holiday has provided an opportunity to record the incidence of *Cordyline* dieback in roadside trees along State Highway 1 from Christchurch to Warkworth, then observations along the road between Warkworth and Ti Point in Rodney County. In addition, the progress of the disease has been observed on marked trees growing on Ti Point and elsewhere in the County.

The dieback disease is characterised by a rapid debilitation, defoliation and apparent death of affected trees. Rees-George et al. (**1**) have described the symptoms and use the name sudden decline. However, dieback is a more appropriate term as it emphasises the characteristic of the disease, namely the defoliation and death of affected trees. The cause of the dieback has not been determined though Beever (**2**) and Rees-George et al. (**1**) have discussed some likely pathogens and Platt (**3**) has considered physiological factors.

Dieback of *Cordyline* seems to have been first noted in mid-1987 (**1**). During our annual camping holiday on Ti Point I examine the coast vegetation and the local residents mention anything untoward regarding the vegetation. During the 1987-88 holiday period I had especially observed the *Cordyline* on Ti Point, not for any disease symptoms, but to obtain a sample of the slender growth-form common in the region for progation at Lincoln. During this survey I did not observe any obvious disease symptoms. My first knowledge of the disease came from Mr John P. Adam of Auckland during a botanical history conference in Melbourne in May 1988. One *Cordyline* tree which had earlier taken my attention was a large tree growing beside the front gate at the late Dr Lucy B. Moore's home ('Huamara') at Warkworth. On 14 January 1987 we visited Lucy's home to collect a parcel of books she had gifted to Botany Division and I particularly observed this fine tree because there was a *Myrsine* seedling growing high up in the tree (**4**). At this time I did not note anything amiss with the *Cordyline* tree. We next stopped by 'Huamara' on 14 January 1989 and the tree was defoliated and apparently dead. When observed on 13 January 1991 the tree showed no regrowth and was being overgrown by *Elaeagnus*. Thus the death of the tree at 'Huamara' occurred during the period January 1987 and January 1989 and seems to have coincided with the first reports of the *Cordyline* disease in Rodney County.

ROADSIDE SURVEY
1. Orewa to Warkworth

The initial survey of roadside *Cordyline* trees was made from Orewa to Warkworth on 30 December 1988 (the number in parenthesis is the total number of trees observed). Severe dieback was recorded on 8.8% (93) of roadside trees and a further 10.2% of trees showed initial symptoms giving a total of 19.0% affected trees. These figures are similar to those reported for Rodney County(**5**). A survey of the same region was completed on 16 January 1991 when severe dieback was recorded on 22.2% of trees with a further 4.4% of trees showing initial symptoms giving a total of 26.6% (45) affected trees.

2. Warkworth to Ti Point

The initial survey along the main road from Warkworth to Ti Point on 30 December 1988 indicated that 19.5% (108) of trees showed severe dieback symptoms. A survey of the same region on 11 January 1991 showed 14.1% with severe dieback and 5.8% of trees showing initial symptoms giving a total of 19.9% (103) affected trees.

3. Ti Point to Leigh

Three roadside surveys on 7 January 1989, 12 January 1990 and 10 January 1991 showed 5.0% (50), 7.4% (61) and 7.6% (88) of trees with severe dieback.

4. Auckland to Turangi

The first survey on 15 January 1989 detected one dead *Cordyline* tree in a swamp at Motuoapa, just north of Turangi. Another survey on 17 January 1991 showed a tree with dieback symptoms at Huntly and two dead trees at Motuoapa.

5. Turangi to Wellington

The first survey on 16 January 1989 detected two trees showing possible initial symptoms of yellowing and some dieback near the turnoff to Marton. On 19 January 1990 one dead tree was noted near Oroua Downs and on 18 January 1991 a tree showing partial dieback was noted near Foxton. *Cordyline* trees are very common in this region and these were the only likely examples of the northern dieback in the many hundreds of trees observed.

6 Picton to Christchurch

Cordyline trees are especially numerous along State Highway 1, north of Kaikoura. Of the many hundreds of trees observed between Picton and Christchurch firstly on 17 January 1989 just 2 dead trees were noted north of Kaikoura and 3 additional trees showed partial dieback. Then on 19 January 1991 one tree was noted with severe dieback near Staces Culvert north of the Clarence River plus the 2 trees noted above. A few additional trees throughout the region had some dieback on individual branches.

7. Christchurch City and Suburbs

Cordyline trees in Christchurch sometimes show dieback of individual branches though no examples of the typical northern dieback have been noted. A tree in our home garden has for the last few years had an unthrifty appearance with some yellowing on leaves and premature leaf fall, but unlike the northern disease new shoots from the base of this tree appear normal. Two dead trees have been seen in the region: one along the Summit Road south of the Sign of the Kiwi and another beside the Avon River on Avonside Drive.

An example of the type of partial dieback on one or two branches seen in *Cordyline* trees around Christchurch is shown in a photograph taken in May 1963 by Mr C.J. Miles (retained in Cockayne collection at Centre) of Leonard Cockayne's old home and a tree growing on the site of the Tarata Experimental Garden in Bexley Road, New Brighton just as the site was being subdivided. Cockayne left Tarata in 1903 and nothing now remains on the site. Perhaps this tree was planted by Cockayne. The photograph clearly shows dieback of some branches which is not uncommon on trees in Christchurch and elsewhere. Some bark disruption occurs on the base of the trunk and perhaps insect bore holes in the trunk. This photograph incidentally shows the value of a good quality photograph beyond the original purpose for which it was taken.

PROGRESS OF DISEASE ON INDIVIDUAL TREES IN THE VICINITY OF TI POINT, RODNEY COUNTY

Marked trees have been observed between January 1889 and January 1991 and the recordings are continuing. Diseased trees show the symptoms described by Rees-George et al.(1) for different stages of the disease.

A characteristic of the disease is the failure of defoliated trees to show regrowth. The evidence from Lucy Moore's tree at Warkworth shows that progress of the disease can be quite rapid and the defoliation and demise of a tree can occur within 2 years. However a roadside tree near Mrs Mavis Davidson's home at Leigh near Ti Point appeared normal when first observed in January 1989 but was defoliated by January 1990. During the period January 1990 to January 1991 an apparently normal tree on Ti Point developed severe symptoms. These observations indicate that the dieback symptoms and demise of an infected tree can occur in a year. Rees-George et al. (1) record the length of time from the first appearance of symptoms to complete defoliation as between 2-12 months with an average of 4-6 months. Dead and apparently normal trees have been noted in close proximity. On the other hand the progress of the disease from diseased to adjacent normal trees has been observed.

Fungus fruiting bodies on the trunk of a dead tree on Ti Point and on a tree in Titirangi showing initial dieback symptoms were identified by Dr R. E. Beever (pers. comm., 30 January 1991) as a species of oyster mushroom *Pleurotus* though he was of the opinion that this basidiomycete which occurs on dead and dying *Cordyline* is secondary rather than a primary pathogen.

CONCLUSIONS

It is clear from these roadside surveys that the severe dieback of *Cordyline* is less common south of Auckland and only isolated diseased trees have been seen between Auckland and Christchurch. Dieback

could of course have more than one cause and the death of the few trees in Christchurch and elsewhere may be unrelated to the northern dieback. The survey suggests that the incidence of dieback in the Orewa-Warkworth-Ti Point region of Rodney County has not increased substantially since my first survey in 1989. The immediate need is to determine the casual agent or agents. It is deplorable that the cause of such a serious disease affecting a characteristic, notable, and persistent tree in the N.Z. landscape should remain unresolved. The lack of adequate Government funding for plant pathological research must be a major factor. The vacillating Government science policy in recent years has also no doubt been a contributing factor.

REFERENCES

(1)Rees-George, J., Robertson, G.I. & Hawthorne, B.T. 1990: *N.Z. Journal of Botany 28*: 363-366. (2)Beever, R.E. 1990: *N.Z. Botanical Society Newsletter No. 22*: 6-7. (3)Platt, G. 1990: PA report in *Christchurch Star*, 6 February. (4)Thomson, A.D. 1987: *Botany Division Newsletter No. 114*: 12. (5)Buchanan, P.K. & Rees-George, J. 1988 *DSIR Biological Industries Group Newsletter No.16*: 1.

A. D. Thomson, Centre for Studies on N.Z. Science History, 5 Karitane Drive, Christchurch 2

BIOGRAPHY

■ Biographical Notes (2): Albert James Allom (1825-1909)

Allom was born in London on 20 December, 1825, the son of an eminent artist and architect, whose lithographs of the New Zealand Company's settlements, based on sketches by Charles Heaphy and others, helped popularise emigration. When barely 16, Allom joined the Company's surveying staff as a cadet, and on 9 February 1842, arrived in Wellington on the *Brougham*. He assisted with the survey of the Wairarapa and Dunedin, and supervised road works in Wellington and the Hutt Valley. In February, 1845, the whole staff was disbanded, owing to financial difficulties, and Allom became a partner in a Wairarapa cattle-run. But in 1848 private affairs called him home. Here he assisted Edward Gibbon Wakefield and others in planning for emigration, particularly for the Canterbury settlement. Then, in 1851, he became Private Secretary to the newly-appointed Lieutenant-Governor of Tobago in the West Indies. In 1860 Allom retired from the Colonial Office through ill-health, and then became General Manager and Agent of a London company called "The Great Barrier Land, Harbour, and Mining Company Limited". In this capacity he arrived at Auckland in December 1861 on the *Mermaid* with his wife and three children (**1,2**).

In November and December, 1867, Allom assisted Thomas Kirk and FW Hutton in their botanical and geological survey of Great Barrier Island. They discovered a novel *Olearia* which Kirk named *O. allomii* and wrote: "This plant was discovered on Mount Young by AJ Allom Esqu., Captain FW Hutton, and myself in November, 1867. I have done myself the pleasure of naming it after Mr Allom, as a pleasant memorial of his valued aid when exploring the Great Barrier Island"(**3**). In December "in company with Mr AJ Allan" (sic), they explored Arid Island for several hours(**4**); and Allom also gave Hutton information about birds(**5**).

In 1867 the Great Barrier company went into liquidation, and Allom's address then changed from Port Fitzroy (Great Barrier) to Shortland (now in Thames) in the Auckland Institute membership list. At the Thames goldfield Allom held positions in the Departments of Justice and Mines. By March, 1877 the Alloms were at Mackaytown, south of Paeroa, where the Rev. Vicesimus Lush visited them and noted in his journal: "the Alloms used to live at Parawai - he is J.P. and under-Warden, so the chief personage in the little community"(**6**).

Allom retired in 1886, and except for seven years in Tasmania, where his son-in-law was Government Geologist, lived in Auckland. He very actively interested himself in the work of obtaining and erecting the statue of Queen Victoria in Albert Park; and in the establishment of the Auckland Scenery Conservation Society in 1899(**1**). He died in Parnell on 16 February, 1909(**7**).

(1)Cyclopedia of N.Z. Vol.2, 1902, with portrait; (2)*N.Z. Herald* Feb. 18, 1909; (3)Kirk *Trans. N.Z. Inst.*, 1871; (4)Hutton *Trans. N.Z. Inst.* 1869: 163; (5)Hutton *Trans. N.Z. Inst.*, 1869: 160; (6)A. Drummond (ed.)

The Thames Journals of Vicesimus Lush 1868-82, Pegasus, 1975; (7)Registrar-General's Office; *N.Z. Herald* Feb 17, 1909.

Eric Godley, Research Associate, DSIR Land Resources, Private Bag, Christchurch

PUBLICATIONS

■ **Trees and Shrubs of New Zealand - Lindsay Poole and Nancy Adams.**
The 1990 edition of this classic work is now available at $29.95 (includes GST and p&p within New Zealand) from DSIR Land Resources.

This edition has been completely revised with up-to-date names, a new format and includes some new illustrations. Write to:

Publication sales, DSIR Land Resources, Private Bag, Christchurch

ANNOUNCEMENTS

■ **Wellington Botanical Society Jubilee Award**

Wellington Botanical Society now invites applications for an award of up to $1000 to encourage and assist appropriate people to further the knowledge of the New Zealand indigenous flora, and to commemorate the Jubilee of the Society.

PURPOSE OF THE AWARD

The Award is open to anyone working in New Zealand and will be granted for:

field work; artistic endeavour; publication; research; the propagation or cultivation of New Zealand native plants for educational purposes; or other projects which promote the better understanding of the New Zealand indigenous flora and vegetation.

The interpretation of these conditions will be flexible except that the main criterion shall be the furtherance of knowledge or promotion of the intrinsic value of the New Zealand indigenous flora and vegetation.

The Award may be used to defray costs such as travel, accommodation, materials, or publication.

APPLICATIONS FOR THE AWARD

Applications should be made in typescript to the Secretary of the Wellington Botanical Society, 9 Mamari Street, Rongotai, Wellington 3, by 10 October 1991.

There is no prescribed application form but the following information should be provided:

the applicant's name, mailing address, telephone number, and any relevant position held;

a summary statement of the applicant's accomplishments in the field of botany (no more than one page);

the name, address, telephone number, and designation of a referee who is familiar with these accomplishments;

an outline and timetable of the proposed project for which the Award is sought; and

a proposed budget for the project.

SELECTION

The Award will be made to one or more applicants selected by a subcommittee nominated by the general committee of the Wellington Botanical Society. An Award will not be made if suitable applications are not received. The decision of the subcommittee will be final, and no discussion or correspondence will be entered into. Current members of the subcommittee are not eligible to apply.

The Award will be made, and applicants informed of the results in writing, by 10 November 1991.

Successful applicants will be required to provide, at an agreed time, a short report on what they have achieved and an account of their expenditure of Award Funds.

The names of Award recipients, the value of the Award, and synopsis of the project provided by the recipients will be published in the Annual Report of the Wellington Botanical Society.

Carol West, 9 Mamari Street, Rongotai, Wellington

DESIDERATA

■ Flora of New Zealand Volume IV - New Records and Corrections

As we expected, the publication of Volume IV has stimulated a burst of collections of naturalised plants and quite a number of significant additions to the known flora have been made. We are grateful to the people who have already sent us valuable new collections.

We are now compiling a list of new records, newly substantiated records, and major corrections to the text of Volume IV (dealing with naturalised dicotyledons, gymnosperms and pteridophytes). We do not intend to deal with the native species treated in the Flora at this time, nor will we add to distribution records.

If readers have information about new records (either unpublished or published since the Flora appeared) supported by herbarium collections, or collections which verify previously unsubstantiated records, we would ask them to send us the details so they can be incorporated. We would like to receive these before September 30th so we can prepare a list by the end of the year.

Colin Webb, Bill Sykes, Phil Garnock-Jones, DSIR Land Resources, Private Bag, Christchurch

FORTHCOMING MEETINGS/CONFERENCES

■ Systematic and Ecological Relationships of South Pacific Floras

Planning for this joint meeting of the Australian Systematic Botany Society and the New Zealand Botanical Society is continuing. A first circular was distributed in early May calling for provisional registrations of interest. If you have not seen this and would like to, please write to the undersigned.

A second and final circular giving details of requirements for papers and abstracts, registration fees, programme, tours, and including a booking form to be returned with the deposits, will be sent to those who have responded to the first circular. The second circular will be posted in July.

Anthony Wright, Auckland Institute & Museum, Private Bag, Auckland 1

■ Trans-Tasman Ecological Forum IV - Southern South America Ecological Excursion 1 January-19 February 1992

Background

The idea that there should be greater exchange in ideas and information in a field setting between ecologists and others interested in the natural environment from Australia and New Zealand, initiated in 1987 what has been dubbed the Trans-Tasman Ecological Forum (TTEF). Twenty-five New Zealanders

from a range of backgrounds (University, DSIR, Department of Conservation, Forest and Bird, interested naturalists etc), spent two weeks in Tasmania in January 1988, joining in the field with individuals of like interest from all over that State. In February 1989, a similar group of Tasmanians spent two weeks in the South Island (unfortunately time did not allow the crossing of Cook Strait). Such was the enthusiasm for the continued exchange that a group of 12 New Zealanders and Australians have just spent 2 weeks in New Caledonia (February 1991) - combining their ecological and conservation perspectives.

From the outset, the organisers of the first Forum, Kath Dickinson (now at Victoria University, Wellington) and Brian Patrick (now of Department of Conservation, Dunedin) had a "five-year plan" which had a Forum visit to southern South America as its pinnacle. We are therefore pleased to announce (and canvas for interest) the intended Fourth Trans-Tasman Ecological Forum 1 January-19 February 1992!

General Information

A maximum number of 15 people from both Australia and New Zealand to visit Chile and Argentina south of 40°S, including Patagonia and Tierra del Fuego. In keeping with TTEF I-III we will have a "no frills" approach with low cost accommodation including camping at times. Costs will be kept to a minimum using mainly public transport once in South America. Although subject to some fluctuation we estimate costs as follows:

c $NZ 2500 air return NZ-Argentina
c $NZ 2000 expenses whilst in the country

Our proposed itinerary visits such habitats as beech - podocarp forests; pampas; wetland; alpine with at least six national parks included - Tierra de Fuego, Los Glaciares, Nauhel Huapi (Argentina), Quelat, Torres del Paine, and Vicente Perez Rosales (Chile).

Are you interested? Then please let the Fourth Forum organisers know. Further details and itinerary available from either

Kath Dickinson, School of Biological Sciences, Victoria University, PO Box 600, Wellington
or
Alan Mark, Department of Botany, University of Otago, PO Box 56, Dunedin

■ Joint NZ-Australia Geography Conference

The Australian Institute of Geographers and the NZ Geographical Society are holding their first ever joint conference in Auckland from 27-31 January 1992. There will be a section on Biogeography on the theme "Environmental variability and disturbance and the evolution and maintenance of Australasian biological communities". Contributions are encouraged from ecologists, palaeontologists and those interested in cladistics. For further information please write to:

Dr Neal Enright, Department of Geography, University of Melbourne, Parkville, Melbourne

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