Editorial

Christmas greetings to all members of the Group
- I hope the festive season will prove to be a happy and restful one - and one fruitful in orchid finds.

The part of the Newsletter that interests readers most is the Notes section. This includes your reports of orchid finds and observations: please keep sending this valuable information, in longhand, note form, or whatever; if you have not sent observations, please do so - regularly. The formal articles from experts are only a part of our publication: the records of your finds are equally valuable - they are read and appreciated.

Enclosed is a request for your subscription and order form. Please give this your urgent attention, and send it back as soon as possible. Sending reminders is hard and thankless work.

Mapping

The good news is that the NZ Lottery Board has granted the NZNOG $500 to begin our mapping scheme. Chances are they will continue to fund a similar annual amount, and provide a larger sum in five years for publication of a report.

The bad news is that the Ecological Region Maps are not yet available in usable form, and that the new Checklist of NZ Orchids has not yet been published, and so is not ready for us to use. The formal mapping scheme will work much more successfully when both are at hand.

In the meantime I include with this Newsletter an introduction to the mapping scheme. The best plan seems to be to proceed now with recording observations, and for you to make alterations to the locality recording when the Maps become available; I will change the names when the Checklist becomes available.

Until then, we will use in the Newsletter the orchid names that our authors use, but after that we will alter all names to comply with the new ones.


The last of a four-part series written after a trip to the UK in 1986.

We are lucky to live in a less populated country than Britain, one which already has an extensive National Parks and Reserves policy, but there are still lessons for New Zealand from the British experience. Many, many sites have of course already been lost to development here, so that some plants have become so rare as to be regarded as endangered, and others once common have become locally rare.

What are the issues in native plant protection here? First is the protection of territory itself, and here the National Parks and Reserves Act of 1977 provides reasonably effective legislation. Thus offenders may be fined, asked to pay the costs of reparation, and may forfeit property if they "cut, destroy or take any plant or part of a plant indigenous to New Zealand and growing in a National Park; or plant a plant, sow or scatter seed, introduce substances injurious to plants; remove or damage any part of a plant...." But David Given, author of the book Rare and endangered plants of New Zealand, writes that even here, there is inadequate finance, and outdated management methods which need to take greater account of the rapidly growing literature on conservation biology, conservation education, etc.
And not all rare species oblige by growing in National Parks -- many are found on private land, and here saving them may be very difficult.

Among thirteen rare or extinct New Zealand orchids mentioned in David Given's book is *Calochilus robertsonii*, whose major site is in low scrub in the middle of a Rotorua racecourse; it will survive on this private land only if it is neither fertilised nor mown during the months it is above ground. *Cryptostylis subulata* was discovered in a Northland swamp some years ago. It is a rarity in the wild in New Zealand, though reasonably common over the Tasman: should we therefore countenance the drainage of its habitat? How should we respond to the sale of plants taken from the wild by plant retailers? *Pterostylis venosa* grows in only one area within twenty miles of Dunedin, and that is on private land; that site will soon be ruined as the recently planted pines grow. The species is common elsewhere in New Zealand, though, so how strenuous should our efforts be to save our local site?

*Corybas acuminatus* and *Drymoanthus adversus* could once (last century) be found in patches of bush around Dunedin: now they have gone - "choked out by stronger and coarser aliens", wrote GM Thomson - and one must travel many miles to see either. Even the relatively common *Dendrobium cunninghamii* is now rare around Dunedin, collected. I suspect, from all the accessible places until now it can only be found on precarious perches on tall trees and high cliffs. Local rarity is certainly less important than saving a nationally (and especially an internationally) endangered species. But ready access to plants from population centres seems important too - and may serve to focus the attention of local groups more effectively than national issues.

Protection on private land is very hard to achieve. The Native Plants Protection Act of 1934 has proved to be unworkable -- some years ago when developers wanted to remove pohutukawa trees from an Auckland site, a judge ruled that trees were not plants, and down they came. A draft revision of the Act is in the pipeline, but although it was given priority in 1983, otherwise preoccupied governments have yet to introduce it into the House. David Given sees inadequate .. legislation currently as one of the greatest impediments to the fostering of an adequate conservation ethic in New Zealand -- good legislation creates the necessary awareness. Perhaps the new Department of Conservation will change all of this.

In the end, the people must feel a conservation ethic, a pride in the saving of wild plants in the wild, and an awareness that gathering even one plant to take home is a destructive act.
Notes

♦ Doug McCrae, Paranui, Kaitaia writes: "While botanising near Manganui recently I came across an 'alba' Corybas cheesemanii. Only a few plants, growing near the typical species. Dorsal light lime green, labellum white - flushed with green, rest of flower white. Leaves were rather small, but flowers were slightly larger than usual". See also KF Ross's article below - Ed.

♦ Bruce Irwin has designed a logo for the Group. It is a delightfully stylised, flowing image of Corybas rivularis: badges have been ordered from Taiwan, and T-shirts and sweat-shirts with the logo screen printed may be ordered. A form is appended.

♦ Where did I read that Corybas unguiculatus had been found in the Maratoto Valley? Can a Thames reader please tell us?

♦ A notice in the Bulletin of the Western Australian Native Orchid Study and Conservation Group suggests possible activities for local members of our Group: "A rescue dig was called at short notice with a ring around late in the week before Sunday 5 July. The area targeted was in Canning Vale and set for development. Eleven members attended and were able to pot the following species: P. parviflorum, C. huegelii, C. deformans, P. vittata vittata, L. fimbriata, Corybas sp. This spot will be worth a visit over the next months - until the bulldozers move in".

♦ In this regard, the Bulletin of the WANOSCG tells us that in Australia there are "actions possible in preserving declared rare orchids in the pathway of bulldozers. Under current legislation, any person may apply in writing to the Minister for a permit to take or remove declared rare flora.

♦ Orchid stamp collecting, a book by HS Wilshaw, includes this illustration of Thelymitra pauciflora on a postage stamp from Burundi. Interesting. It is time we had a set of New Zealand native orchid stamps - there is a ready market among thematic collectors, and the stamps would draw attention to the range, variety and beauty of our orchids.

♦ RL Heberle notes in the WANOCSG Bulletin, "A recent attempt to save the rare and
endangered species *Prasophyllum lanceolatum* and at least 38 other orchids and associated flora that have been observed flowering over a period of 28 years on land designated Public Open Space and Recreation, seems likely to (fail).... Proposals are to re-zone the land and hand it over to the Golf Club who propose to permit a Japanese investment company to build a 5 star hotel and a new clubhouse for the Golf Club in exchange. A very tidy little deal for all concerned, except if you happen to believe in conserving orchids."

♦ On the subject of conservation, there is good news. I quote verbatim from Max Gibbs, writing in the Taupo Orchid Society *Newsletter*. "During our native orchid field days last year, it was suggested that an approach be made to Forestry Corp. with a view to conserving or preserving part of the native orchid habitat at Iwitahi. I have been working towards that end, and on Monday (3/8/87) together with Trevor Nicholls and Darrell Campbell, I met Mark Strong and Glen Johnston from Timberlands, BOP at Iwitahi to see what could be done. I had previously sent them a map marking the exact locations we were interested in conserving. Unfortunately one of these areas had already been logged before my letter arrived and another was being logged. The central location we considered the most important had not yet been touched."

"We were able to show Mark and Glen the emerging orchids in several of the areas and they had a keen sense of conservation and appreciation of the problem. After-some discussion they made us a very" generous offer which we have accepted on behalf of the Taupo Orchid Society and the Native Orchid Group.

1. The area presently being logged will be left until the orchids are mature enough to locate and transplant to places like the Botanical Gardens.
2. The area will then be logged, burnt and replanted with *Pinus radiata* which will be managed for suitable light environment to encourage the re-establishment of orchids from the adjacent central block.
3. The central block will not be logged but will be given a reserve status to protect the existing populations of native orchids and provide the seed stock for the new planting. The block will also be managed to extend its life by the removal of the odd dead or dangerous tree which could cause a domino effect, and spraying of copper to control *Dothistroma* which could kill the trees.
4. The use of sprays will be banned on the roadside area adjacent to the camp to protect the native orchid *Calochilus robertsonii*.

"As you can see, the orchids came very close to being destroyed but thanks to Timberland BOP there will always be a unique collection of native orchids at Iwitahi for us and future generations of Kiwis to enjoy. "Thank you Timberlands BOP, thank you very much." TOS Newsletter Editor Edna Campbell adds. "Thank you Max. Thank you very much." And we echo that too.
The Taupo Times carried this piece on the Iwitahi orchid reserve.

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Taupo Orchid Society member Max Gibbs said Timberlands had agreed to make the area a reserve in an attempt to protect rare orchids which grew there.

The five hectare site was only 40 kilometres south-east of Taupo, but was deep in the forest, he said.

Twelve varieties of native orchids had been found growing there. These included Calochilus robertsonii (bearded orchid) which was formerly thought to exist only in Rototua, and Chiloglottis cunning, the first found in the North Island.

Mr Gibbs said the society was excited about the new reserve.

"It's the first truly native orchid reserve in New Zealand," he said.

It was a special way to mark Conservation Week, which was being celebrated this week.

Many people did not recognise native orchids when they saw them, as they often looked like grasses.

While the area would be open to interested people, Mr Gibbs said its location would not be widely publicised to protect the orchids.

Reviews


♦ Orchid research Newsletter: No. 9. Eds JZ Stirton, P Cribb, J Stewart. Royal Botanic Gardens, Kew, Richmond, Surrey. Lists new publications (e.g. A synopsis of Corybas in West Malesia and Asia) and book reviews, projects, field trips, material needed/offered, and individual readers.

♦ Richards H, R Wootton, R Datodi. Cultivation of Australian Native Orchids. Australasian Native Orchid Society (Victorian Group), 1984. Excellent tips on growing epiphytes and terrestrials. The point is made again, "Native orchids are protected plants in Australia and should never be collected from the wild unless in danger of destruction and, even then, written permission from the owner of the land or relevant authorities, must be obtained."

♦ The Orchid Review. Vol 95, No 1119, January 1987 contains a paper on the cultivation of European orchids by various authors. The Kew Gardens methods seem to be successful for many species.

Articles

A rival for Corybas cryptanthus?
by KF Ross, Lower Hutt.

The non green Corybas cryptanthus is the only New Zealand orchid recognised as flowering below the surface - normally under leaf mould and moss on the forest floor. Whilst searching for this elusive plant in early July, under beech trees near the Hutt Valley, I came across three pale, semitransparent flowers buried under the litter. They were tinged with pink, had no obvious leaves or green parts associated
with them, and were connected to a fragile rhizome network. At first I thought they must be *Corybas cryptanthus* flowers, but on closer inspection realised they lacked the filiform processes on sepals and petals, and did not have the coarse fringing of the labellum. They had, in fact, the form of *C. aconitiflorus* flowers, and sure enough, on searching slightly more widely, I found a few typical *C. aconitiflorus* plants above the surface of the litter. They had just finished flowering, had the typical small green leaf, and appeared to be connected to the rhizome network of the "underground" flowers. The whole patch was about a metre in diameter.

It would seem unlikely that these three flowers had become covered after opening, as they were 2-3 cm below the surface of dense beech litter, and in my experience *C. aconitiflorus* flowers last only a week or so before dying. Note also the pale, almost transparent appearance of the flowers, and the absence of any associated green leaves.

It would seem from this finding that *C. aconitiflorus* may sometimes have a non-emergent method of flowering, and that in such cases the normal leaf does not develop. Perhaps other members could search more closely around any *C. aconitiflorus* finds next winter, and see if they can confirm this.

**A Corybas species found at Iwitahi**  
Max Gibbs, Taupo

This plant has an overall appearance similar to *Corybas trilobus* except that the flower is green rather than red.

![Corybas trilobus and Corybas ?](image)

The solitary leaf is larger and heavier than that of *Corybas trilobus*, with prominent veins and black spots irregularly spaced around the edge and along the central vein. The shape is less distinct than *Corybas trilobus* without the
pronounced central lobe.  

The dorsal sepal is green with darker veins; it forms a deep cap over the labellum covering almost half of the flower, and has no red markings.

The labellum is white to pale green with a darker green median extending from the pouch to the anterior end - the labellum is much smaller than in Corybas trilobus. The sepals are very long and erect. The petals are short and curve down. The flower is always above the leaf (Corybas trilobus below leaf). Apart from the leaf spots the plant does not appear to have any red pigment.

Max Gibbs (15 Rahui St, Taupo) would be glad of comment on his observations from those knowledgeable about Corybas. So would we - Ed.

The orchids of Taumatarea
by ED Hatch, Laingholm. Auckland.

The Laingholm promontory is a sandstone boulder some 400 feet high, 1500 acres in extent and covered with a thin layer of gum clay. It is bounded on the south by the Manakau harbour, and on the west and east by the estuaries of the big and little muddy creeks. At some time in the past the sea level must have been much lower than it is at present, since the gullies are steeply eroded and the estuaries drowned valleys. It was originally covered by magnificent kauri forest which was largely chopped out by George Laing in the 1870s. The big trees averaged four to the acre and varied from three to seven feet in diameter. When I first saw the area in 1923 the stumps were still standing amid the wreckage of the ruined forest, and could be measured and counted.

The following orchid species were recorded between 1926 and 1940. After the
War the area was rapidly built over and suburbanised, and very few of the listed species can now be found.


**Endangered Orchids**

by Kevin Luff, Wanganui

I have been reading recently about conservation efforts being made by several people around New Zealand to save endangered orchids from extinction from areas which are being reclaimed. I have become concerned about a couple of orchids in our area. About three years ago I made trips to the Tongariro National Park to try to find *Prasophyllum patens* and *Pterostylis micromega*. With the help of Dan Hatch and Archie Grant who found these in the area many years ago I set off to try and find them again. After a couple of seasons hunting and several days of walking through mud and water I managed to find these species. I visited several swamps in the area and I'm afraid all the swamps that contained these species in any numbers are outside the Park boundaries.

I found *Prasophyllum patens* in four swamps around the Park. One stood out - it was one of the original areas that Dan Hatch botanised forty years ago, and reported in the NZNOG Newsletter. I am afraid the swamp is now dry and overgrown - not good for these orchids. But in spite of this the orchids still managed to survive: the area contained about sixty very large *Prasophyllum patens*. They were obviously old grand daddy plants being much larger than any others I had seen. There were no young plants, which suggests that the lack of water prevented seeds germinating. I think this colony will die out soon. In fact someone has been bulldozing the front of the "swamp" which could spell death for the area. Pine trees surround it. In the swamp I also found one plant of *Pterostylis micromega* which seems to be a lot rarer than *Prasophyllum patens*. This is the only plant I have seen in the whole National Park area. I wrote to Dan Hatch and he was very surprised to hear that *Prasophyllum patens* was more prevalent than *Pterostylis micromega* - this was not the case forty years ago. The hummocks of vegetation in the dried up swamp were the first to overgrow and choke out the *Pterostylis micromega* and left the *Prasophyllum patens* safe in the open (mud and four inches of water) areas. But now this protection of water is almost gone. There were also many other orchids found in the area - *Spiranthes sinensis*, *Pterostylis montana*, *Corybas rivularis*, several *Thelymitra* species, plus all the other common things.

I think there is an urgent need to save these plants - I can't see them lasting very long. Several other areas are in danger of becoming pine plantations by planting or self-seeding from surrounding trees. I have seen many suitable swamps inside Park boundaries away from the heather. I would like to strip these areas and put the plants inside the Park, but I need help.

I have also hunted for these species around Mt Taranaki - I was supplied with localities by Tony Druce - but with no luck.
I think *Prasophyllum patens* and *Pterostylis micromega* are very endangered, certainly much more insecure than any *Calochilus* species (except *Calochilus campestris* of course). Something needs to be done before they all die out completely. If anybody is interested in transferring these plants into the Park and is willing to help please let me know. I would like to do something about it this season - flowering time in January.

I have tried growing *Prasophyllum patens* - it doesn’t work, and is not worth the hassle and disappointment. I don't know if any written permission is needed from the local Ranger or not. Please help.

Interested local members should contact Kevin Luff directly (PO Box 5092, Wanganui). There are legal restrictions on planting in National Parks (see my editorial above); and problems with survival of transplanted orchids, especially if the habitat is not suitable, or lacks the right mycorrhizal fungi, or if the plants are moved in an active growth stage. But we must applaud Kevin Luff's concern: the orchids deserve the help he asks for - Ed.

**Kaitaia Orchid Society's native orchid field days**
**7 and 8 November 1987**
by Doug McCrae, Paranui, Kaitaia.

**Saturday - Kaimaumau.**

Despite the heavy rain which threatened to disrupt proceedings, a group of ardent enthusiasts assembled in Kaitaia for the drive to Kaimaumau. about 20km to the north.

On arrival at John and Margaret Perry's there was no evidence of rain, and with only one light shower, the day was most enjoyable. A group of about 45 from as far south as Dunedin, Christchurch, Nelson and Wellington, together with those from the North Island, was about to embark on a weekend of rare orchid hunting.

First stop was a 3ha block of scrub at the back of Dee and Shirley Hoggard's. This was the locality of the first recent sighting of *Calochilus campestris* (*C. herbaceous*), and visitors hoping to view and photograph this little green beardie were not to be disappointed. This particular small block is a veritable cornucopia of orchids. Many early-flowering orchids (*Caladenia, Thelymitra, Corybas* spp.) had finished. It is in early spring that this little patch really displays its myriad of orchids; which include some undescribed Northland endemic species. Some members of the group would have had their first sighting of *Thelymitra aemula* here.

After a few minutes the first pair of *Calochilus* was located and a little later another flowering specimen was found. Last year seven flowering plants were found but only three managed to fulfil their destiny this time around. *Prasophyllum colensoi* was next, followed by *Corybas oblongus* and various *Thelymitra* spp. in flower.

Lunch time had arrived. John and Margaret Perry, with helpers from the Kaitaia Orchid Society, had hot tea, coffee and snacks ready for all those orchidists. dry and hungry after a morning out in the never never.

The group, now enjoying the warmer weather, piled back into their vehicles and headed a few kilometres back down the road to another much larger block of shrubland comprising some 150ha. This area is also home to a variety of rare and endangered orchids and it is hoped a proposal currently before DOC to have it reserved will be successful. This could also be a "safe area" for the transplant of orchids from other habitats still being lost in the Far North. *Calochilus campestris* (*C. herbaceous*)
was again found in two places, one colony of four plants and a singleton further along the track. Scattered Thelymitra spp. were noted and a few small plants of Pterostylis plumosa were seen. Microtis unifolia and M. parviflora were, as usual, everywhere. Seed heads of Prasophyllum pumilum, Corybas unguiculatus and the early Thelymitra spp. were common. The seed capsules of Caladenia alata and C. minor were dotted about, but not always easy to see. The afternoon came to a halt about 3 pm, and participants headed back to Kaitaia.

The ladies of the KOS excelled themselves with a scrumptious buffet for more than fifty people at the Sweetwater Nursery canteen. During the evening Brian Molloy of DSIR delivered a particularly interesting address, illustrated with slides of various Northland orchids. Dr Molloy has recently visited Australia and will shortly announce a major shake-up of the NZ orchid flora. A good evening was had by all.

Sunday - Ahipara Gum field plateau.
By comparison, Sunday was a nice clear sunny day, giving good views of Ninety - Mile Beach as the party followed the narrow winding road up to the plateau. The morning was spent in the Historic Reserve where, despite fairly thorough searching in the past, a new orchid was found. This was a cerise-coloured Thelymitra in the T. pauciflora- T. longifolia complex. Some members of the group noticed the Lycopodium serpentinum and the glowing red sundews inhabiting the restiad areas. More plants than previously noted of Thelymitra ixoides were seen and Corybas unguiculatus seemed to be everywhere. Another plant of Calochilus paludosus was seen, bringing the total known plants in this area to nine. Seed heads of Caladenia alata were seen along with flowering Prasophyllum colensoi. There were also the usual more common Thelymitra spp. flowering, and seed heads of some of the undescribed spp.

The ladies from the Orchid Society brought more of the previous night's goodies up and we all had a delicious lunch. Unfortunately, we had to farewell some of those who had come a long way and had to fly home that afternoon.

Back down the road to the "top o' the hill". Great views of Aupouri, Kaitaia and Ninety Mile Beach were there for the taking. This section of the tour was intended as a scenic, but great discoveries lay ahead. A view to the south and west showed the immense wilderness (8000 acres) of this sandstone plateau.

The feature here, after a 2km walk, was what is known locally as the "Canyon". This is a large, very colourful basin which has been eroded over a long period. Just about everyone had camera to eye. En route to the Canyon more of the usual pinky form of Thelymitra longifolia were spotted growing on the bank above the track. One large clump claimed the attention of many.

The afternoon was drawing on and many of the group who had to drive as far as Auckland headed homeward. The tail enders headed further along the track towards the sand dunes. Here was a solitary plant of Earina mucronata, terrestrial at the base of a Cyathodes juniperina bush. On the opposite side of the road - a single specimen on Calochilus campestris (C. herbaceous) was found. Further searching of the area revealed two more. This was a particularly good find which helps to make the species slightly less tenuous than previously considered. However with less than twenty plants known, it is still fairly rare.

In the immediate area were two more plants of the cerise Thelymitra sp seen in the Reserve earlier in the day, a lot of the unusual pink Thelymitra longifolia and a number of Orthoceras sp. Another "new" orchid noticed in the wetter areas, as well as in similar habitat elsewhere in the Far North, is a dark Thelymitra pauciflora type. This shows a number of features uncharacteristic of T. pauciflora, including the fact that it has only been found in wet areas. T. pauciflora s.s. is not considered to be a wetland species.
After final photographs were taken, the remnants of the party made the trek back to their cars. A little weary after a long warm day, the tail enders bid a fond au revoir to the Gumfields - and return they will, for who knows what other new orchids are still to be found lurking in this huge wilderness.

The organiser trusts that all who partook in these field days enjoyed the experience. It was good to see old friends and to make new ones. Thanks to all for making these field days so much of a success.

*And thanks Doug for organising them, and especially thanks to all your friends who worked hard to feed, show, entertain and host a large group during a fascinating weekend - Ed.*

List of species found on the field days
Kaimaumau - Saturday 7 November 1987:


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**NEW ZEALAND ORCHID DISTRIBUTION MAPPING SCHEME:**
**INSTRUCTIONS FOR CONTRIBUTORS**

**Outline of the scheme**

The mapping scheme aims to obtain information on the detailed distribution of orchids throughout New Zealand in the twenty years from 1973 to 1993.
The basic data for the maps will be lists of species compiled onto the Ecological Regions and Districts Maps which are based on the New Zealand Topographical Maps 1:500,000 scale (NZMS 242D). The scheme is open to anyone willing and able to identify native orchids and follow the instructions. The forms are available from the NZ Native Orchid Group (one copy herewith). Please fill in the forms, but leave the Ecological District number blank, and keep the forms until the maps are available.

**When to use the record form**

The forms should be used -

- By anyone who can recognise and identify native orchids accurately.
- Any time they see a native orchid.
- Anywhere in New Zealand or its offshore or outlying islands.

List only species you know for sure. Never miss an opportunity to list remote areas irrespective of the season: it may be the only list compiled from that area, or will complement other lists.

If you have well-recorded observations from the past there is no reason why they cannot be used, but we have decided on an arbitrary cutoff point at 1973, so cannot accept observations made before that.

**How to fill in the forms**

Before writing anything, photocopy or send for enough forms for your future needs. Please keep your writing legible, and small -- use a pencil, as ink blots and some ballpoint ink fades with time. Please do not use red, as we will make our own notes in red. If you copy a list onto a new form, destroy the old one so that it is not sent in later in error.

You may wish to keep a duplicate yourself, in case forms are lost after you have posted them.

Use a new form when you are reporting on a new habitat, on a different field trip, at a different time of year, etc.

Detailed instructions on how to fill in the form are typed on the back of the sample form.

**Supply of blank forms and return of completed forms**

*from and to* Ian St George, 45 Cargill St, DUNEDIN.

**Unidentified orchids**

If possible obtain three specimens for identification, as one will be needed for dissection. Wrap in damp sphagnum moss, and despatch quickly. Please send an s.a.r- with your specimens. The following people are prepared to receive plants for identification:

- Doug McCrae, Paranui, RD 3, KAITAIA.
- Dan Hatch, 25 Tane Rd, Laingholm, AUCKLAND.
- Bruce Irwin, 192 Bellevue Rd, TAURANGA.
- Gordon Sylvester, 22 Pencarrow Rd, Wainuiomata, WELLINGTON.
- Dorothy Cooper, 37 Waimea Rd, Waikanae Beach, WELLINGTON.
- Brian Molloy, Botany Division, DSIR Lincoln, CANTERBURY.
- Ian St George, 45 Cargill St, DUNEDIN.
- Lyn Young, 61 Argyle St, MOSGIEL.