

plants occur only under trees or shrubs where birds are likely to perch, and in anycase the grass is too tall to give taupata seedlings much chance. It is not so clear, however, why the plants grow only under trees where the branches grow low to the ground, forming a shady shelter, and not under the few where the lowest branches are well above the ground.

It may be mentioned that since the publication of Allan's Flora the known distribution has also been extended down the west coast of the South Island. Colin Burrows has recorded it for Twelve Mile Bluff, some nine miles north of Greymouth and Peter Wardle lists it as occurring in coastal scrub on Hokitika Beach, though he regards it as probably planted there. The Hokitika locality is not quite as far south as Gore Bay.

#### REFERENCES

- Allan, H.H. 1961: Flora of New Zealand. Vol.1. p.584.  
Burrows, C. 1977: A Miscellany of Floristic Records.  
Canterbury Botanical Society  
Journal No. 10. p.9.  
Mason, R. 1978: Gore Bay and Port Robinson -  
Miscellaneous Notes. Canterbury  
Botanical Society Journal No. 11.  
p.33.  
Wardle, P. 1980: Floristic Notes for the Region  
between the Taramakau and Haast  
Rivers, Westland, New Zealand.  
N.Z. Journal of Botany. Vol.18.  
p. 53.
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#### NATIVE ORCHIDS OF THE CHRISTCHURCH PORT HILLS

John Thompson

This is an account of the native orchids seen on the Port Hills during the 1979-80 season. As the orchid flowering season is a comparatively short one there were considerable areas we were unable to examine. No doubt additional orchids can be found in some of these areas.

Orchids were looked for in localities with the following results:-

##### Gullies near Lighthouse:

- |                       |                             |
|-----------------------|-----------------------------|
| Thelymitra longifolia | On ledges on cliffs         |
| Microtis unifolia     | On grass areas below cliffs |
| Earina autumnalis     | On ledges on top of cliffs  |

Jollies Bush:

Gastrodia sp. Two plants were seen in 1977 but none since.

Lyttelton Reserve No. 101:

Thelymitra longifolia On rock crevice  
Corybas macranthus On damp shaded grassy bank  
Pterostylis graminea In bush  
Earina autumnalis Three sites on cliffs

A previously known site of P. graminea is now thickly covered with Urtica ferox.

Buckleys Bay Reserve:

Since the fencing of this Reserve Urtica ferox has almost completely covered the margins of the bush making access impracticable.

Heathcote Castle Rock:

Earina autumnalis In crevice summit of rocks

Corsair Bay Woodland:

No orchids seen.

Upper Rapaki Track Grasslands:

No orchids seen.

Dry Bush:

Pterostylis graminea Noted in bush in 1975 - not visited this season

Taukahara Bush:

Microtis unifolia  
Pterostylis graminea In upper portion of bush

Scott's Reserve and Walkway:

Thelymitra longifolia On bank of track  
Microtis unifolia On bank of track

Gilpins Track:

Thelymitra longifolia On hillside  
Microtis unifolia On hillside  
Pterostylis graminea In bush

Mitchells Track:

Thelymitra longifolia On hillside  
Microtis unifolia On hillside  
Pterostylis areolata In bush - two plants only  
Pterostylis graminea In bush

Victoria Park:

*Thelymitra longifolia*

*Microtis unifolia*

Crater Rim Track - Upper Portion:

*Thelymitra longifolia*

*Microtis unifolia*

Coronation Track:

*Thelymitra longifolia*

*Microtis unifolia*

*Corybas macranthus* Two sites - damp grassy banks

Ellas Track:

No orchids seen.

Halswell Quarry Track:

No orchids seen.

Kennedys Bush - Holdsworth Track:

*Microtis unifolia* In bush

*Pterostylis graminea* In bush

Bush East of Cass Peak:

*Pterostylis graminea* Upper portion of bush

Cass Peak Bush:

No orchids seen.

Hillside and Bush Valley below Cass Peak:

*Thelymitra longifolia* On grass slopes

*Prasophyllum colensoi* On grass slopes

*Microtis unifolia* On grass slopes

*Pterostylis foliata* On grass slopes - 1 plant only

*Pterostylis areolata* On grass slopes

*Pterostylis montana* On grass slopes

*Pterostylis graminea* In bush

Rocks above Living Springs:

*Earina autumnalis* Seen by Mr. Roxborough of L.S.

Second Gully west of Kennedys Bush:

*Thelymitra longifolia* On grass slopes

*Prasophyllum colensoi* On grass slopes

*Microtis unifolia* On grass slopes

*Corybas macranthus* On grass slopes

Second Gully west of Kennedys Bush (Continued):

|                             |                 |
|-----------------------------|-----------------|
| <i>Pterostylis areolata</i> | On grass slopes |
| <i>Pterostylis montana</i>  | On grass slopes |

Bush above Second Gully:

*Pterostylis graminea*

Gibraltar:

|                              |                                  |
|------------------------------|----------------------------------|
| <i>Prasophyllum colensoi</i> | On grass slopes                  |
| <i>Microtis unifolia</i>     | On grass slopes                  |
| <i>Corybas trilobus</i>      | In bush                          |
| <i>Pterostylis areolata</i>  | On grass slopes and in bush      |
| <i>Pterostylis graminea</i>  | In bush                          |
| <i>Pterostylis montana</i>   | On grass slopes and bush margins |

Ahuriri Bush Reserve:

|                             |         |
|-----------------------------|---------|
| <i>Pterostylis areolata</i> | In bush |
| <i>Pterostylis graminea</i> | In bush |

Hillside below Ahuriri Reserve:

|                              |                 |
|------------------------------|-----------------|
| <i>Thelymitra longifolia</i> | On grass slopes |
| <i>Prasophyllum colensoi</i> | On grass slopes |
| <i>Microtis unifolia</i>     | On grass slopes |
| <i>Pterostylis foliata</i>   | On grass slopes |
| <i>Pterostylis areolata</i>  | On grass slopes |
| <i>Pterostylis montana</i>   | On grass slopes |

In all we saw ten species of orchids. The areas with most species were the grazed paddocks on the Western end of the Port Hills. Here orchids were usually found on steep banks facing South indicating that they require good moisture but also good drainage. Sometimes they shared the paddocks with grazing sheep. As no orchids were seen in paddocks with long grass it appears that grazing of paddocks is a prerequisite to the establishment of grassland orchids and that regular grazing is necessary for their survival.

We were unable to find evidence of damage to orchids caused by grazing sheep. A number of *Pterostylis areolata* were noticed without flower heads, the stems and leaves being left untouched. Apparently the latter were unpalatable. Partly eaten flowers indicated that the damage was caused by a small mouth such as that of a hare or rabbit.

As would be expected the plants of *Pterostylis areolata* and *P. montana* growing in the open grasslands were smaller and tougher than their counterparts growing in the bush.

The most interesting orchids we found were the plants of Pterostylis foliata. This species was previously known on Banks Peninsular only from Kaituna Valley.

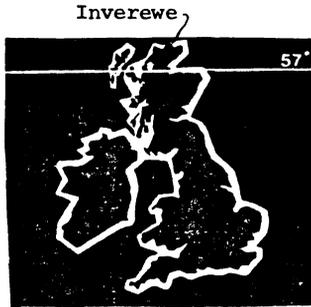
It is satisfying to be assured that in spite of farming operations, fires, spread of noxious weeds there are still many native orchids to be seen and enjoyed on the Port Hills.

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NEW ZEALAND PLANTS IN FARAWAY PLACES

INVEREWE GARDENS

Norman S. Sutherland



A chance remark as we motored out of Fort Augustus for the north west coast of Scotland on a recent trip to Britain "that we shouldn't miss Inverewe Gardens" provided a delightful interlude in the day and a wish that we could have stayed longer.

Inverewe Peninsula described by its Gaelic name Am Ploc Ard - the high lump - is a mass of red Torridonium sandstone and over a 100 years ago it was almost void of vegetation and the only soil was the rawest acid black peat. It catches nearly every gale that blows and is continuously being soused with salt spray but to counter the more vicious of the elements there is a benevolent warm flow of air emanating from the Gulf Stream which has been an important factor in the development of the gardens.

Three people have played a major part in the making of the Gardens. The founder, Osgood Mackenzie, bought the estate in 1862 and he began then the work of transforming a barren little headland into a sheltered and fertile spot where plants from many lands could but flourish, almost the identical time that our own Christchurch Botanic Gardens was founded. This task occupied him until he died in 1922. Mrs. Mairi T. Sawyer, his daughter continued to work during her lifetime and in 1952 a year before her death handed the garden over to the National Trust for Scotland with an endowment for