

hills immediately to the east of the Hutt Valley. But there are large areas that can be looked into right along both sides of the Kimutakas, along the eastern foothills of the Tararua from the Puffer to Mt. Holdsworth and on the western side of the Hutt Valley from about Haywards to the lower end of the Akatarawa.

In the relatively undisturbed tussock, scrub and bush of the ranges, the orchids are probably growing much the same as they were a hundred years ago. Quite a few species are found but most of them do not occur in very great numbers.

In constructing the key to the local orchids (p. 9) care has been taken to avoid the use of technical terms as far as possible. It is hoped that by its use any plant may be tracked down with a minimum of trouble—provided of course the plant can be recognized as an orchid to start with. The key is designed for fresh material and is practically useless for dried plants. Specimens, except in the case of epiphytes, must also be in flower. Although made specifically for the Wellington district, the key can be used with reasonable safety as far north as Wanganui, Taihape and Central Hawke's Bay. If the recent volumes of the Transactions of the Royal Society of New Zealand are available, they can be consulted with benefit, for many of the orchids are illustrated there with clear drawings by Mr. E. D. Hatch. The key should not be regarded as infallible for there are doubtless other orchids still to be found in the district, especially in the genera *Thelymitra* and *Pterostylis*.

The diagram showing the flowering periods of some of the orchids (p. 8) is based on observations made in the Hutt Valley over the past four seasons. In most cases the higher the altitude at which the individuals of a species grow, the later they come into flower. The flowering periods in this diagram are only for the range, sea-level to 1,500 feet. Those species which ascend beyond 1,500 feet extend their flowering periods by amounts varying from a week to over a month. The diagram should help both in identifying an orchid in flower and in knowing when to look for a particular species.

It only remains now to indicate which orchids are typically found in manuka, which in forest, etc., and to note in parenthesis the distribution of those that are not widespread.

#### Orchids of Manuka Scrub

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|--|--|
| <i>Thelymitra longifolia</i>                         |  |
| <i>T. pauciflora</i>                                 |  |
| <i>T. decora</i>                                     | <i>P. barbata</i> (Day's Bay, Silverstream to to the Puffer) |
| <i>T. irioides</i> (Wallaceville)                    | <i>Actanthus reniformis oblongus</i>                         |
| <i>T. caesia</i> (Silverstream, Hutt and the Puffer) | <i>A. fornicatus sinclairii</i>                              |
| <i>T. venosa</i> (Tararua)                           | <i>Corybas macranthus typicus</i>                            |
| <i>Pterostylis graminea</i>                          | <i>C. oblongus</i>   |
| <i>P. banksii typica</i>                             | <i>Prasophyllum colensoi</i>                                 |
| <i>P. nana</i> (Silverstream)                        | <i>P. nudum</i>  |
|  | <i>Microtis unifolia</i>                                     |
|  | <i>Chiloglottis cornuta</i>                                  |

- |   |  |
|---|--|
| <i>P. foliata</i> (Homedale, Mangaroa and the Puffer) | <i>Orthoceras strictum</i>               |
| <i>P. multifolia</i>                                  | <i>Caladentia carnea minor</i>           |
| <i>P. montana typica</i>                              | <i>Gastrodia cunninghamii</i>            |
| <i>P. venosa</i> (Tararua)                            | <i>Aporostylis bifolia</i>               |
|   | <i>Calochilus paludosus</i> (Upper Hutt) |

#### Orchids of the Bush

- |                                 |  |
|---------------------------------|--|
| <i>Earina mucronata</i>         | <i>Pterostylis banksii typica</i>              |
| <i>E. autumnalis</i>            | <i>P. graminea</i>                             |
| <i>Dendrobium cunninghamii</i>  | <i>P. trullifolia</i>                          |
| <i>Sarcochilus adersanus</i>    | <i>Gastrodia cunninghamii</i>                  |
| <i>Bulbophyllum pygmaeum</i>    | <i>Adenochilus gracilis</i> (Ruamahanga basin) |
| <i>Chiloglottis cornuta</i>     | <i>Corybas trilobus</i>                        |
| <i>A. fornicatus sinclairii</i> | <i>C. macranthus typicus</i>                   |
|                                 | <i>C. ricularis</i> (Mangatainoka R.)          |

#### Orchids of Subalpine Scrub and Snow Tussock

- |                                     |  |
|-------------------------------------|--|
| <i>Pterostylis venosa</i> (Tararua) | <i>Lyperanthus antarcticus</i> (Tararua) |
| <i>P. banksii</i> var. (Tararua)    | <i>Aporostylis bifolia</i>               |
| <i>Prasophyllum colensoi</i>        |  |

#### Orchids of Wet Banks

- |                              |                                   |
|------------------------------|-----------------------------------|
| <i>Corybas oblongus</i>      | <i>Corybas</i> sp.                |
| <i>C. macranthus typicus</i> | <i>Pterostylis banksii typica</i> |

#### Orchids of Bog and Swamp

- |                                       |                              |
|---------------------------------------|------------------------------|
| <i>Spiranthes sinensis</i> (Waikanae) | <i>Prasophyllum colensoi</i> |
| <i>Thelymitra venosa</i> (Tararua)    | <i>Aporostylis bifolia</i>   |
| <i>Microtis unifolia</i>              |                              |

#### NEW RECORDS

The following orchids have not previously been recorded from the Wellington district. Specimens are deposited in the Herbarium of the Botany Division.

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|-------------------------------------|---|
| <i>Thelymitra pauciflora</i> .      | Manuka scrub, plentiful.  |
| <i>T. irioides</i> .                | Manuka scrub near Wallaceville, rare.   |
| <i>T. caesia</i> .                  | Manuka scrub near Silverstream and Upper Hutt, local; on the Puffer, plentiful. |
| <i>T. decora</i> .                  | Manuka scrub, common.   |
| <i>Pterostylis montana typica</i> . | Manuka scrub, frequent.   |
| <i>Spiranthes sinensis</i> .        | Waikanae estuary, collected by Miss Neumann.                                    |

On the evidence of occasional intermediates, it is suggested that the following crosses take place amongst the orchids in the district: *Thelymitra decora* X *pauciflora*, *Pterostylis banksii typica* X *montana typica*, *P. b. t. X graminea*.