

taraire, *Neopanax*, lacebarks, ribbonwoods, kamahi (*Weinmannia*), putaputaweta, kawakawa, *Fuchsia*, titoki, and sometimes even cabbage trees.

In all the layers of the forest epiphytes and semi-parasites exist. Mistletoe, with red or yellow flowers, is a semi-parasite. The lilies (*Astelia*) perch on many trees, as do the small broadleaves (*Griselinia*) and the *Panaxes* and the true kiekie (*Freycinetia*).

Climbers include the beautiful *Clematis* species, supplejack, *Muehlenbeckia* (black vine), and the bush lawyers (*Rubus*), which belong to the rose family.

Though the herbs in our forests are relatively few and insignificant, few of them are uninteresting horticulturally or botanically. The orchids are reminders that we were once tropical and sub-tropical, and we are still well endowed with them, though they do not rival their overseas relatives in size. Of special interest are the hanging ones, of which we have three—two species of *Earina* and *Dendrobium cunninghamii*. Of these, only *Earina autumnalis* has an outstanding scent, and none have flowers over 2.5 cms. across. These are, however, unsurpassed for their minute and intricate detail and delicate colourings.

Other orchids are found in patches on the ground and are mainly *Pterostylis* (tall, green-flowered), and *Corybas* (with heart-shaped leaves and dark purple, spider-like flowers).

Other forest herbs include the blueberry (*Dianella*), *Nerteras*, *Libertia grandiflora* (a larger version of the coastal species), and the lantern berry (*Enargea*). Grasses include *Chionocloa*,

Microlaena, and the hook-grasses (*Uncinia*), one species of which is dark red.

Mosses and ferns are of special interest in the forest, where they abound in its shade and protection. Here identification is sometimes difficult and it usually helps to group the ferns along these lines:

- (a) Filmy ferns: delicate, thin fronds (*Hymenophyllum* and *Trichomanes*).
- (b) *Aspleniums*: light green ferns that produce many hybrids. Most common species are Hen and Chickens (*Asplenium bulbiferum*) and the hanging spleenwort (*A. flaccidum*).
- (c) Hard ferns (*Blechnum*): these have distinct fertile fronds covered by brown sori.
- (d) *Polypodiums*: a small group of creeping ferns with thick rhizomes (creeping stems).
- (e) Tree ferns: *Cyathea* and *Dicksonia*.
- (f) Maidenhair ferns: *Adiantum*.
- (g) Shield ferns: *Polystichum*.
- (h) Umbrella ferns.

Mosses provide a study in themselves, and in our forests we have many species. Special note can be made of the *Lycopodiums*, which can be confused with ferns, but are really a group distinct from both mosses and ferns.

Our forests, with their trees and associated flora, provide a beautiful expression of Nature for the plant enthusiast, and it would be a tragedy to the world if they were ever to disappear completely. Our forests gave us a beginning and a home; now they give us sanctuary and peace of mind.



More About the Welcome Swallow

By J. A. S. HOWARD, Marton

A PARTY of 20 from the junior group of the Rangitikei Section (known as the Marton Junior Naturalists' Club) paid a visit early in June to the Dellow's farm at Bulls to see the welcome swallows which have colonised the locality over the last few years. An article on these birds appeared in the May issue of "Forest and Bird". Flocks of up to 30 have been seen recently, especially early in the mornings and again toward evening.

We arrived a little too early, but after some time, during which we saw a few flying about at some distance from us, a pair came in to feed above the shallow water at the edge of a small, raupo-fringed lake on the edge of the sand dunes. They were completely unperturbed by our group standing quietly in the open by the water's edge, and on occasions they flew close behind, above, or in front of us. They were as quick and agile on the wing as fantails, as they pursued and caught insects

for their evening meal, sometimes a few inches, sometimes a few feet above the water.

We heard the continual snappings of their beaks as they caught tit-bits on the wing, and they chattered and chirruped quite freely as they went about their business. Not once in half an hour did one of them alight for a rest. Occasionally a bright ray from the setting sun illuminated one of them, and we could fully appreciate its glistening blue-black upper surfaces, red forehead, and reddish-brown throat and breast. Just as we were leaving, as daylight was starting to fade, about 10 more swallows came in to seek their evening meal.

We consider ourselves very lucky to have such an interesting bird colony close at hand, and we are very pleased that the birds should have made their home in an area where they have been so carefully watched by the Dellow boys, and where their future should be secure.