

NOTES FROM FOREST RESEARCH HERBARIUM

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- **UNUSUAL FORM OF SILVER BEECH**

An unusual specimen from the upper Whirinaki Valley, brought in by Brenda Baillie of Forest Research, is definitely silver beech (*Nothofagus menziesii*) but it has most unusual leaves. The plant was just over 1m in height and the leaves are small (about 9 mm long and 3-5 mm wide), very narrow and coarsely, irregularly serrated (see Figure 1). Except for the size and shape of the leaves the specimen appeared to be typical of silver beech. It was the only specimen of its kind seen.



Fig. 1. Leaves of an unusual form of silver beech with a normal leaf from another tree on the upper right.

- **NEW ANGIOSPERM CLASSIFICATION SYSTEM**

Those who visit the Forest Research Herbarium to look at specimens will find that the angiosperms have been rearranged. The order of families formerly followed Hutchinson (as in “The Families of Flowering Plants”, 1926) and is the arrangement in Allan’s Volume 1 of the “Flora of New Zealand”. Such arrangements attempt to group plant families according to their relationship with each other based on the similarity of their physical characters.

There have been many attempts over the years to produce better family classification systems and some have been widely used. For instance the “Flora of New South Wales” is based on a system by Dahlgren published in 1980, whereas the “Flora of Australia” has families arranged according to the 1981 system of A.J. Cronquist.

More recently, plant paleobotanists and systematists have collaborated extensively to produce the Angiosperm Phylogeny Group system, APGII (for more information see <http://www.flmnh.ufl.edu/deeptime/projectssummary.html#Background>). The Forest Research Herbarium now follows this system for angiosperm families. No doubt refinements will occur, but it shows up-to-date results of research on family relationships.

One of the major changes is the placing of the monocotyledons (grasses, sedges, orchids, rushes etc.) close to the most “primitive” dicotyledons, the Magnoliids, such as Magnoliaceae (*Magnolia*), Monimiaceae (*Hedycarya*), and Piperaceae (*Macropiper*). It is certainly interesting using this new system after having had the specimens arranged according to Hutchinson for the last 30 or more years.

• NATIVE ORCHIDS AT FOREST RESEARCH

More species of native orchids have recently appeared in the Forest Research grounds. As well as the usual large population of *Gastrodia sesamoides* and a few *Gastrodia cunninghamii*, there have been good numbers of *Corybas cheesemanii* (flowering this year in early May). A few *Calochilus paludosus*, *Calochilus robertsonii* and *Caladenia chlorostyla*? (syn. *Petalochilus chlorostylus*) flowered during the summer, some seen here for the first time.

Over the last year, there has been control of possums, rabbits and other occasional animal pests in the grounds. The coincidence with much greater flowering success of the *Gastrodia* population, which has previously had up to 80% of flower spikes damaged or removed, presumably by browsing, together with the appearance of the *Calochilus* last

summer, suggest that browsing was severely affecting these colonies, and it will be interesting to watch for their appearance next summer, for confirmation.