M. angustifolia

Dry leaf showing shrunken areas (pulvini) at each end of petiole and on leaf midrib below.

Section of "normal" part of petiole, vascular tissue prominent in a ring of sclerenchyma (fibre bundle caps dark, other lignified extra-xylary cells stippled), a few unlignified bundles centrally; on right, section of apical pulvinus, bundles smaller, surrounding cells not lignified.

Leaf x 0.7 sections x 7

M. sinclairii

Dry leaf, showing some slight indication of pulvini especially at apex. x 0.7

Sections of petiole, showing variation as in M. angustifolia. x 7

Left: Leaf from below showing margin vein x 3; section of leaf edge showing margin vein, two mucilage ducts, collenchyma (cross-hatched) of margin and upper hypodermis x 15

Right: Yong leaf, the ligule still attached to sheathing petiole base x 0.7

Top: Petiole of mature leaf (lower drawing of part-section) at attachment to stem, showing groove and swellings on upper side, and loss of ligule x 1.5

GINGERS, BAMBOO, AUSTRALIAN CABBAGE TREES AND CYPERUS USTULATUS FORMA GRANDISPICULOSUS

R.O. Gardner

Hedychium species

Healy and Edgar (1980) treat two naturalized species, H. flavescens (yellow ginger) and H. gardnerianum (Kahili ginger). Their excellent comparative descriptions make up for the unhelpful key and the awful and wrong illustration.

They say that other cultivated gingers may eventually be found wild and mention a collection from the Kaiwaka-Mangawhai road "tentatively identified by Orchard (Rec.Auckland Inst.Mus. 10: 116 1973) as a cream-flowered cultivar of H. coccineum var. carneum."

In late February this year I was able to re-collect this plant. Though assisted by the precision of a label in Herb. Esler (now in AK) "8 km from Kaiwaka .. " I found it to be the only ginger colony on this scrubby roadside. It is not H. coccineum, but a variant of H. gardnerianum, as can be told from the wide oblong glabrous leaves, the calyx glabrous except at its tip, the colours of the floral parts typical of this species, the ciliate tube orifice, the pollen yellow (not golden orange) &c.

The flower has a tube a centimetre or so longer than in the common form, but its stamen is only two-thirds the size. Whether the colony makes seed I do not know.

Hedychium coccineum is apparently uncommon in Auckland gardens — there are pink-flowered and orange-flowered (H. aurantiacum) kinds.

Another species, H. greenei is also infrequent here; I have seen plants at Old Government House and at "Landsendt", Oratia. It has smaller leaves, wine-coloured below, and distinctive fiery red rather crumpled-looking flowers. No fruit is made but bulbils form at the base of the old inflorescence; the species has thus "naturalized" in a glasshouse in Scotland, so beware!

Hedychium coronarium, garland flower, is very popular in warmer countries, and seems just to be hardy here too — there is a colony in the Domain near the "Spirit of Auckland" pond and the Valkyrie statuary. It is very like H. flavescens in its leaf and cone-like inflorescence, but its flowers are whiter and larger.

The works I found most useful for Hedychium are Schilling (1982) and Smith (1984).

Bambusa oldhamii

This large bamboo is quite frequent in gardens of moderate age. According to Mr John Isaachsen it was introduced early this century by the nurseryman Hayward Wright of Avondale; there are still impressive shelterbelts of this plant remaining between the factories in Rosebank Road. It seems there has been no mass-flowering yet.

According to Farrelly (1984), use of the name Dendrocalamus latiflorus in older American nursery catalogues comes from misidentification of B. oldhamii. However, the Dendrocalamus is now in cultivation both overseas and in this country; there is a plant, for example, in the courtyard of the Thomas Building at the University of Auckland. It is a giant bamboo, its culms reaching 15 m tall and 15 cm in diameter.

The culm sheaths of bamboos are ready-made for the taxonomist, providing several useful characters and being easy to collect and curate. The Dendrocalamus culm sheath has typically a small reflexed blade, contrasting with the wide upright blade typical of Bambusa.

Cordyline rubra and C. terminalis

Until the recent treatment of the Australian cabbage trees by Pedley (1986) specimens in AK of the former species, collected mostly from Auckland gardens, were misidentified as the latter species. C. rubra is a multi-stemmed plant with relatively narrow leaves and a rather indistinct petiole; and the outer tepals of its flower are shorter than the inner ones.

C. terminalis was brought to N.Z. by the Maori but apparently no longer persists in the wild. It is offered by some nurseries but to judge by the plant against the old barracks wall at University it finds Auckland just too cold.

I have seen fruit of C. rubra only once — the seed appeared good, to the point of germinating in situ.

Cyperus ustulatus f. grandispiculosus

This form, with long spikelets in broad fans, appears so different from the usual plant that a Bot. Soc. specimen in AK from Pages Farm, Huia was filed in the "exotic, undetermined" folder. It apparently is of sporadic distribution (Moore and Edgar 1970). At Western Springs nearly all plants have at least some spikelets of "grandispiculosus" character.

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FIGURES

1. Hedychium species. Leaf undersides, flowers.

   A. H. gardnerianum. Leaf x 0.6 Flowers: upper, typical form of sp. x 1.4, detail of tube mouth x 4.5; lower form of Kaiwaka-Mangawai road colony x 1.4

   B. H. coccineum (Gardner 5637). Leaf x 0.6 Flower x 1.4, detail of base of tube cut to show the two club-shaped nectaries x 4.5

   C. H. flavescens. Leaf x 0.6 Flower x 1.4

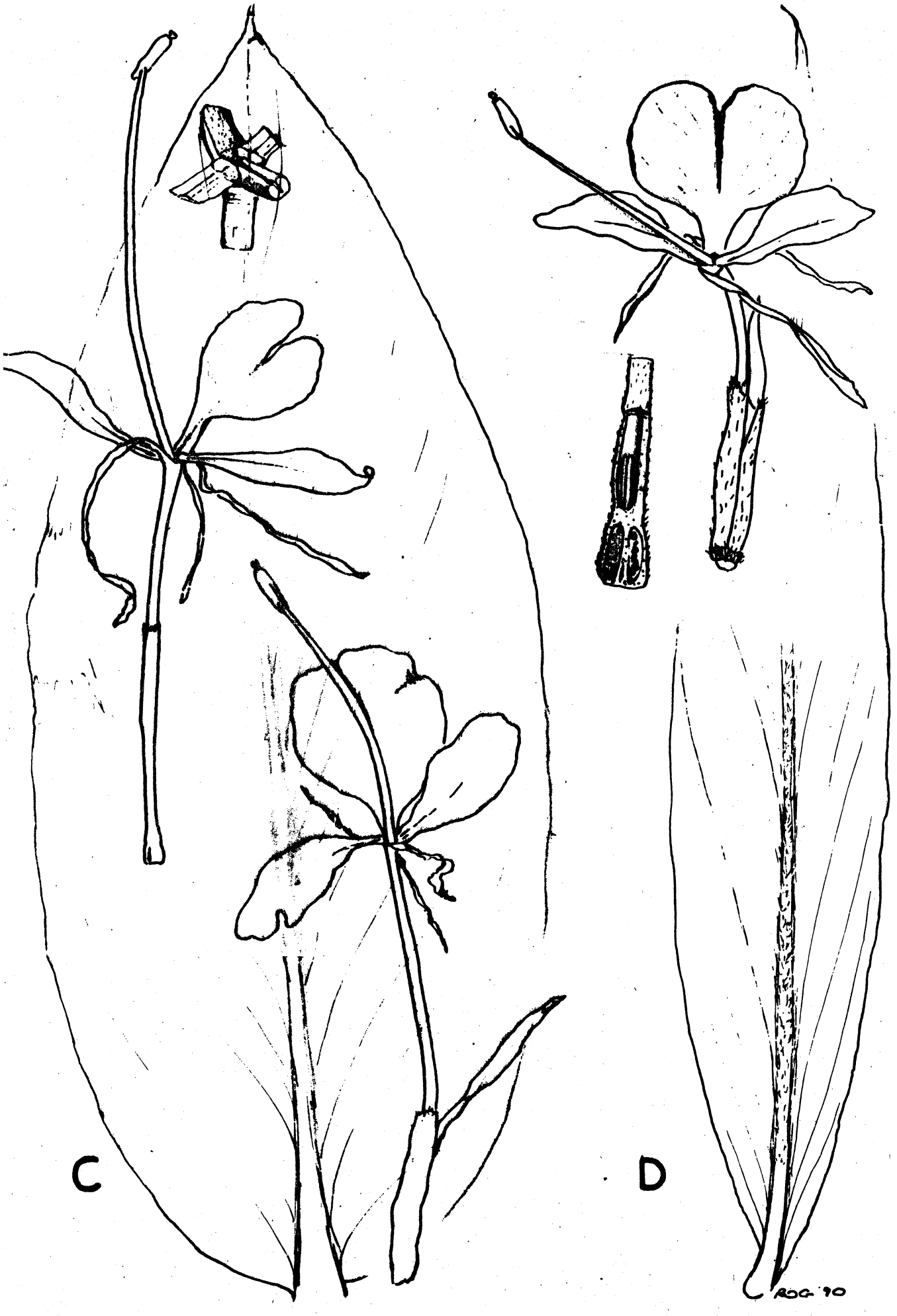
   D. H. greenei. Leaf x 0.6 Flower x 1.4

2. Bambusa oldhamii
   Culm and branch-complement x 0.7; leaves x 0.7, above details of leaf base x 5; culm sheath x 0.5; inset showing habit x 0.07

3. Cordyline rubra
   Leaf and cross-section of petiole x 0.9 Inflorescence x 0.9 Flowers x 5.4, stigma x 27

4. Cyperus ustulatus f. grandispiculosus
   Inflorescence x 1.4; spikelets of forma ustulatus (left) and f. grandispiculosus (right) x 6.3; inset showing habit x 0.07; inset showing variation in spikelets from plants at Western Springs x 0.9

Figure 1.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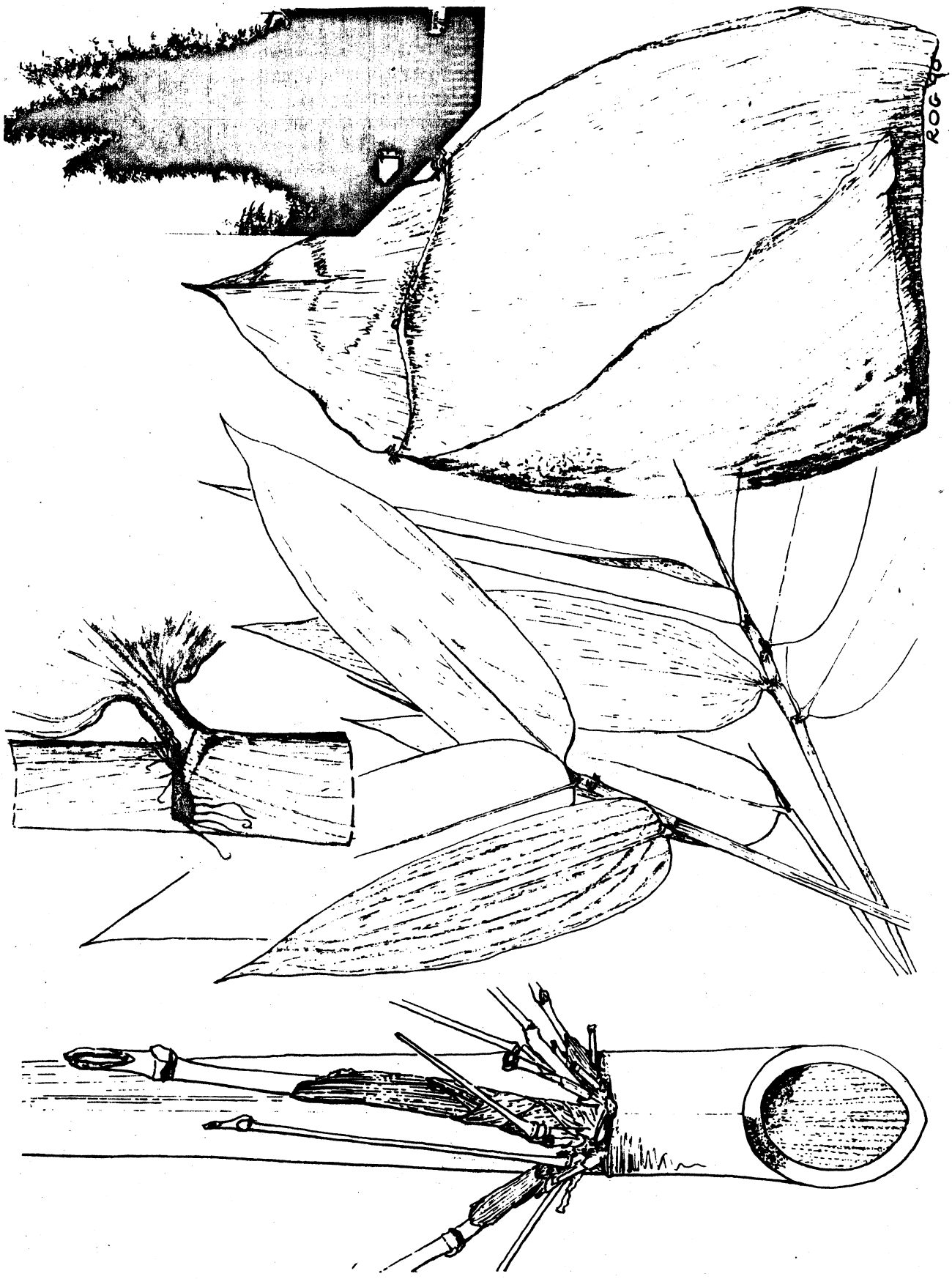

Figure 2.

Figure 3.

Figure 4.