

# Musick Point poser resolved

Rhys Gardner

In a new edition of his splendid account of Auckland's eastern suburbs, Alan La Roche gives up his contention that the thickets of *Pomaderris apetala* (Rhamnaceae) at Musick Point are of ancient Maori origin. Nothing about them seemed to me to support that idea (Gardner 1993), and now there is documentary evidence to the contrary. To quote La

Roche (2011: 274): "The gardens were designed [c. 1940] by Roy Thornton for the Ministry of Works. He planted native trees that would survive the marine environment, including Tainui (*Pomaderris tainui*) from Mokau on the West Coast, Taupata (*Coprosma repens*) and Karo (*Pittosporum crassifolium*)."

## References

- Gardner, R. O. 1993: "Tribes' claims create poser": – *Pomaderris apetala* at Musick Point, Auckland. *Auckland Botanical Society Journal* 48: 8-9.  
La Roche, A. 2011: *Grey's folly*. Tui Vale Productions, Auckland.

# The ligules of Auckland's grasses (Gramineae)

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## Introduction

Sometimes, confessions can be more reassuring than shocking. This is certainly so in the case of that excellent all-rounder Eric Godley 's admission, that he was "probably typical of young botanists of my generation in knowing very little about native grasses" (Godley 2009: 170). The intrinsic interest of this the world's third-largest flowering-plant family is, indeed, largely negated by an esoteric terminology and the need to come to grips with small and uncooperative floral parts.

But there is a passport into the world of grasses, one seemingly provided by a sympathetic Flora herself. It is the ligule. The function of this structure is unclear but its diverse morphology provides great diagnostic opportunities – at the very least, examination of an unknown grass's ligule will often result in a substantial narrowing of the field of possibilities. Furthermore, although ligules do become tattered as they age they have the advantage of looking more or less the same in the herbarium as in life. This is unlike some "field characters", such as colour and texture, which can change so much as to be useless when matching a fresh unknown to a named specimen.

Note that not just grasses have ligules: they occur in numerous genera of the Cyperaceae, e.g., *Gahnia*

(but not *Morelotia*), some rushes (e.g. *Juncus tenuis*), and *Potamogeton* and some other monocot aquatics.

## Morphology

Almost always (the American tribe Orcuttieae is an exception) the grass leaf is clearly divided into a stem-encircling lower part, the "sheath", and a free (initially folded or rolled) upper part, the "blade". In a growing shoot the sheaths, rolled one inside the other, give mutual support as a "pseudostem" and protect the inner leaves' basal regions of cell division.

The ligule stands across the sheath-blade junction, as a kind of fence between them (Lat. *ligula* little tongue). It is a continuation of the epidermis of the inner (adaxial) surface of the sheath, and is usually 3-layered, although the central layer of cells may be discontinuous. In many of our common weedy European grasses the ligule is a membrane. Its free upper margin may be entire, or undulate, or toothed in some fashion, or it may be topped by a line of hairs ("cilia"). In shape the membranous ligule may be truncate across the top margin, or rounded, or tapered to an acute apex. It may be lacerate, or tear to become so with age. Occasionally, as in *Dactylis glomerata* and *Glyceria maxima*, the margin is sharply peaked near the mid-line. In tightly rolled or