

plants like Lagarosiphon and Ranunculus flammula which are already present) will want to make themselves at home too.

And what should be done with Maher Swamp? Lessons from the Razorback-Nikau Reserve will tell us whether rehabilitation after mining is practicable; unfortunately the mining interests want to know beforehand, in fact need to know, whether Maher Swamp will be available to them. Given the enormous economic value of the project, and the consideration that white paint is a fairly useful sort of product, my own opinion is that mining of the Swamp cannot be opposed out of hand, and that rehabilitation of the northern area should be able to provide an equivalence of habitats. A mined-over Maher Swamp might be exactly the place to begin serious development of our own water-buffalo industry.

ACKNOWLEDGEMENTS

Thanks are due to Graham Don of Bioresearches Ltd (who may not agree with some of the above statements), to Peter Johnson (of the late DSIR Land Resources) for attending to much of the detail during our '92 survey of Maher Swamp, and to the "indigenous souls" of Barrytown, particularly Darcy Craze, whose enterprise and ingenuity contradict the locally popular notion that Coasters too are an endangered species.

REFERENCES

- Henderson, J. 1917. "The Geology and Mineral Resources of the Reefton Subdivision". N.Z. Geological Survey Bulletin 18.
Suggate, R.P. 1989. The postglacial shorelines and tectonic development of the Barrytown coastal lowland, North Westland, New Zealand. N.Z. J. Geology & Geophysics 32: 443-450.
Taylor, N.M. (ed.) 1959. "Early Travellers in New Zealand". Oxford Univ. Press.

Tibouchina (Melastomataceae), the glory bushes

R.O. Gardner

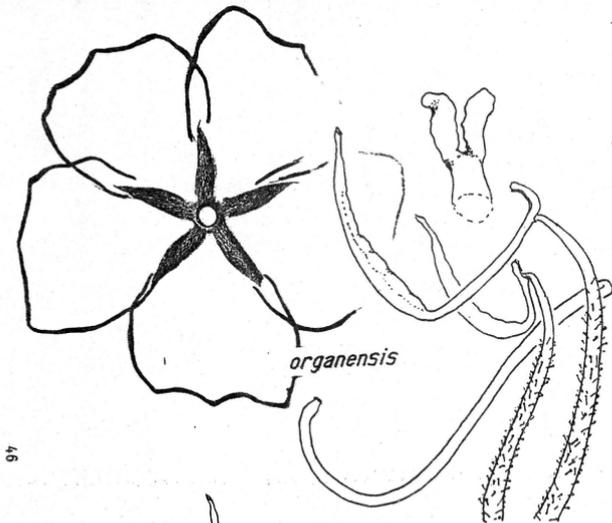
Tibouchina Aublet

Name from a native name in Guiana.

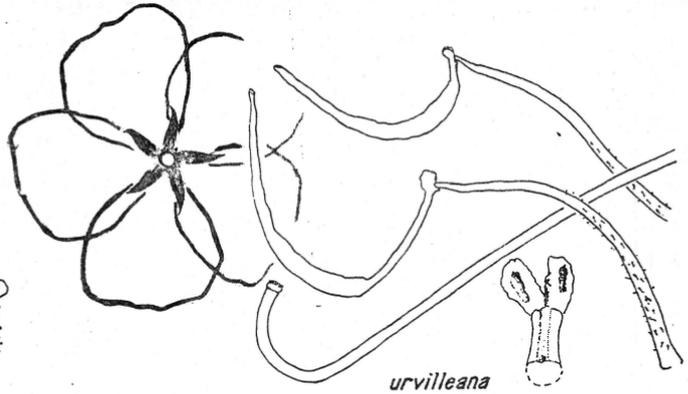
New World, mostly in southeastern Brazil; c. 300 or more species.

Mostly shrubs or small trees, leaves 3-7-nerved, reddening when old; hypanthium usually with simple hairs (occasionally scales), never with stellate hairs; in NZ flowering in early winter, the petals usually purple (occasionally pink or white), the stamens twice as many as petals, often dimorphic in alternation, the anthers often with a 2-lobed spur at their base adaxially, dehiscent by a terminal pore; fruit a capsule fully enclosed by the calyx.

The most familiar of these plants, both in New Zealand and in gardens round the world, is T. urvilleana, a small bushy tree with abundant purple bowl-shaped flowers. As gardeners will know, broken-off stems of this plant take root readily, and although fruit is never set in the usual cultivated form (Wurdack 1967), it has managed to become a troublesome invader of higher-altitude forest in Hawaii. In Flora IV NZ it is treated as having naturalized in the Kermadecs and at several localities in northern NZ.

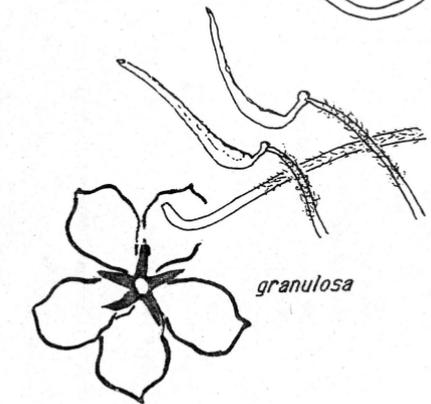


organensis

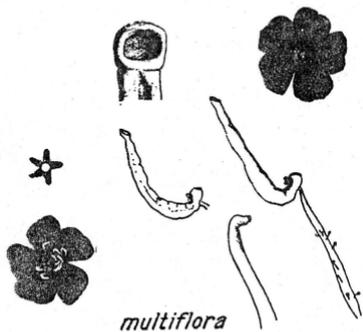


urvilleana

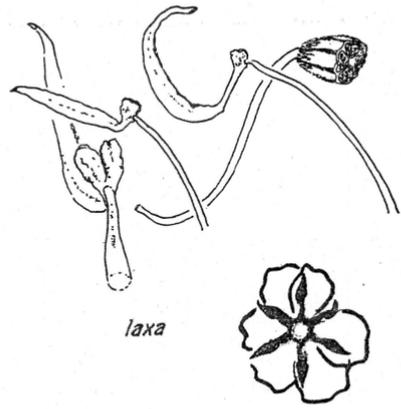
TIBOUCHINA
Brazilian glory bushes



granulosa



multiflora



laxa

T. organensis, which comes from the Organ Mountains of Brazil, is a very similar but larger-flowered plant, seemingly cultivated in the Southern Hemisphere for the last seventy years at least, but perhaps only having become common in the last thirty years or so. Its flowers are c. 12 cm in diameter, with prominent cream-coloured anther spurs. In T. urvilleana the spurs are shorter and rose-purple, and the flowers only two-thirds the size. Care paid to anther details will prevent disappointment -- in melastomes the first-opening flowers on a branch are often much the largest and I have seen the smaller-flowered plant being sold as the other.

T. granulosa, a fairly recent introduction, is a relatively upright small tree, with very handsome dark leaves and winged branchlets. As well as purple-flowered plants there is a delightful pastel pink form developed by Stewart Dawes of DSIR, Mt Albert.

T. laxa, a small shrub with a somewhat scandent habit, and T. multiflora, a shrub with broad subcordate leaves and small flowers, are uncommon around Auckland though no doubt they are in a number of private gardens. There are 2 other species that I have not illustrated. Max Goodey has grown very successfully T. mollis, which is rather different from the previous species in having anthers that are nearly straight, uniform in size, and spurless. And in the grounds of the DSIR at Mt Albert there is another of Stewart Dawes' plants, T. lepidota, which also has uniform-sized anthers, and which, as the name suggests, differs from the other species here in having scales, not simple hairs, on its leaves, stems and calyx.

ILLUSTRATION

Tibouchina flowers and flower parts.

All flower outlines with calyx (entire flowers and separate calyx for T. multiflora) x 0.6. A long and a short stamen shown for each sp.

T. organensis: style, stamens (filaments with glandular hairs) x 2.5; spur x 4.

T. urvilleana: style, stamens (filaments with glandular hairs) x 3; spur x 15.

T. granulosa: style (with hairs), stamens (filaments with fine woolly hairs) x 3.

T. multiflora: style, stamens (shorter stamen on left, its filament not drawn, anther with pore somewhat rimmed, spurs with 2 stalked glands; longer stamen on right, filament with glandular hairs, spurs with c. 6 stalked glands) x 6; rimmed anther pore x 30.

T. laxa: style and part of ovary, stamens x 3; spur x 10.

REFERENCE

Wurdack, J.W. 1967. The cultivated glorybushes, Tibouchina (Melastomataceae) Baileya 15: 1-6.

ACKNOWLEDGEMENTS

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