

The names of the plants make a fascinating compendium of Australian geography, bush lore and creativity. The genuine laconic sound is heard in steelbutt, brown ripples, lenbrassia, and my favorite, tetra beech. It is easy to see why the moraceous vine *Malaisia scandens* is called burny vine (a reference to its sharkskin- textured new shoots) and easier that *Idiospermum australiense* might be called idiot fruit. And the illustrations immediately show why gondola bush is not an Aboriginal name, why the araliad *Delabrea michieana* should be called blue nun rather than just blue bottle, and why one should avoid the giant mother-in-law vine. Opportunity seems to have been missed with the feared *Rhodomyrtus macrocarpa*, whose fruit, like a crooked and swollen finger, is able to cause permanent blindness; it is rather tamely called finger cherry, but "finger-in-the eye cherry " or perhaps "biker's cherry" might be more mnemonic.

The fruits on the page look good enough to touch at least, but a warning is given at the start of the book that psychedelic feasts have their price: "Many rainforest fruits are extremely poisonous and we strongly recommend not to eat any at all — an incorrect identification could cost you your life". This seems a trifle on the strong side. Naturally New Zealanders would avoid chewing any seed at all (trained as we are on tutu and karaka), while black sap, acidity, soapiness and bitterness in a fruit are definitely off-putting. However, when one has an innocent-looking plant like finger cherry in one's flora, caution is eminently sensible. The acrid oils in the fruit wall of some *Cryptocarya* species are not noted. Nor is the seed of *Corynocarpus cribbianus* mentioned as being poisonous. The fruit of *Solanum mauritianum* is said to be toxic, which does not seem likely if it is ripe.

The specimens used in the illustrations have been checked for correctness by B.P.M. Hyland, of the "treasure house" at the Tropical Forest Research Centre, Atherton, and he and two other members of his staff have provided in an appendix a rather staggering species list (23 species of elaeocarp, 17 of diospyros, 12 glochidions, 10 beilschmiedias, 33 cryptocaryas, 30 endiandras, 9 litseas, 32 figs, 41 syzygiums, etc., etc.) for the trees and other higher plants of the rainforest, monsoon forest and vine thickets of northern Queensland.

In the course of a couple of weeks with this large, splendidly produced book I was able to spot only a missed hyphen, a spelling mistake, and a short piece of wrong type. I recommend it to everyone, not least to serious readers who will assimilate it with a side course of Hutchinson, Mabberley and Corner.

Notes on the tawari, *Ixerba brexioides* (Escalloniaceae)

Rhys Gardner

A botanist in a casual mood, playing with a piece of tawari stem on his desk, was overheard incautiously asking another: "What have you been reading lately?". The response was immediate: "H. H. Allan, 1961". The intention being, not to suggest to the first botanist that he had never read it (properly, he had not), but that a word-by-word reading of the classics could still enlighten. The truth of this was underlined by the unusually long period of silence that followed on the part of the second botanist, who had picked up the tawari and a copy of Flora I, to say at last: " I didn't know its stems were pubescent ... ". Nor of course did the first botanist. The following observations spring from this exchange.

H.H. Allan gets the plaudits for being the first to notice the pubescence on the vegetative parts. His account of the fruit and seeds, though, is sketchy compared to that of Bentham and Hooker's "Genera Plantarum", another classic source of detail about New Zealand plants, and the illustrations of Bruce Irwin (Moore & Irwin 1978), and notes by Lucy Moore (1982). Putting together the observations of these authors with some of my own, I have redescribed the species (in its less well-known characters) as follows below.

Ixerba brexioides A.Cunn. Tree to 10 m or so tall (c.20 m, according to Kirk); new growth sometimes with a sparse appressed cover of pale unicellular T-hairs, these dense on inflorescence axes, sepals and petals. Stipules lacking. Leaves spirally arranged, tending to be aggregated in pseudowhorls at the summit of a growth flush, a vegetative bud of stout triangular scales immediately above the pseudowhorl, the scale margins entire, fringed with 1-celled acicular hairs; several cataphylls, intermediate in character, present on a flush between the bud scales and the next full-sized leaves. Youngest leaves with inrolled margins. Old leaves withering orange to scarlet. Branchlets from the top of the penultimate flush, among the pseudowhorl of leaves, and also below the old inflorescence (when?).

Flowers 5-merous, apparently without scent. Petals white, with silky pubescence of T-hairs on both surfaces. Nectar produced by a disc (as ledges above the clawed petal bases). Styles sometimes quite free from one another in their lower third or so. Stigmas not at all elaborated. Ovules two per locule, attached at the inner apex of the locule.

Fruit a dry schizocarp, loculicidally dehiscent; mericarp tissue horny, white. One or two seeds developing per locule, hard, shiny, greyish (imperfect?) to apparently black (in section dark maroon), c. 6 mm long, 3 mm diameter, shaped like a tear-drop cut lengthwise but slightly curved inwards, hilum well-developed, funicle with a large orange caruncle almost enveloping hilar side of the seed. Endosperm rather scanty; embryo green.

Some other Southern Hemisphere members of the rather diffuse family Escalloniaceae have had detailed attention from morphologists, but not *Ixerba*. It is a monotypic genus, supposedly with no very obvious relatives; the name is an anagram of the East African and Indian Ocean genus *Brexia*, also in this family. There is a specimen of the cultivated tree *Brexia madaaascariensis* in AK, and indeed the similarity is striking in its linear strongly toothed leaves. However, it has a large many-seeded fruit. Another genus perhaps at least as similar is *Anopterus* from the Australian temperate forests, at least in the arrangement and appearance of the leaves. Again though, the fruit differs, having numerous winged seeds.

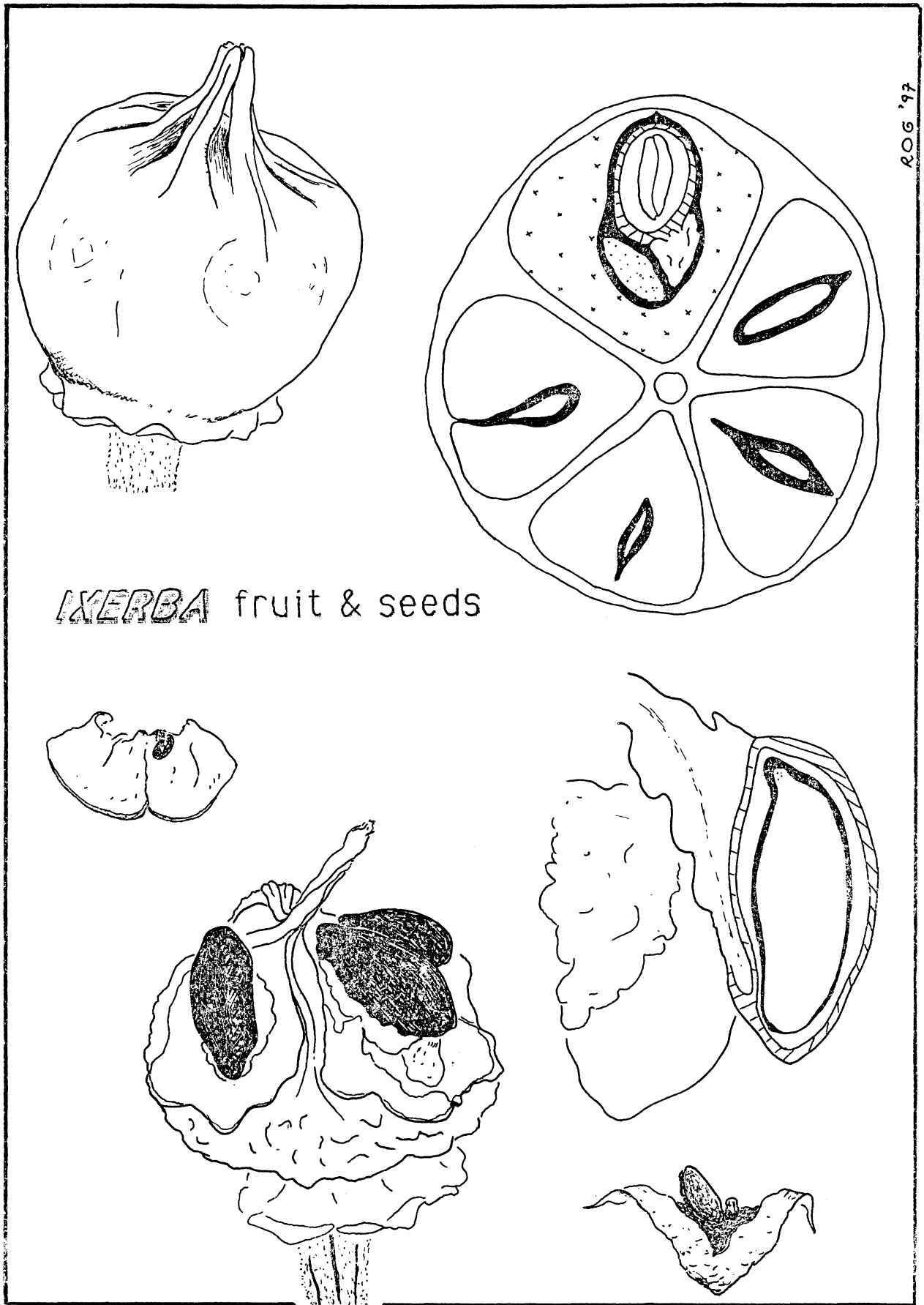
In her article on the fruit of tawari Lucy Moore aptly describes it as being shaped like the Queen's imperial state crown. When it dehisces though the analogy might be with the headgear of some more exotic potentate—the large shiny black seeds balance improbably on their orange cushions around the inner angles of the locules, with the mericarps mostly separate but joined centrally in complicated fashion by the twisted lengths of the split styles. The bases of the mericarps (locule segments) are cup-shaped, and have contracted inwards and upwards, while their wings have spread widely. I am reminded of a peculiarly symmetrical piece of popcorn, whose facets resemble a series of Batman logos ... The fruit and its seeds are illustrated by Moore and Irwin (1978) and in a figure here.

As Lucy Moore did, I collected a piece of tawari in late March, and studied its fruit as they dried out. The thick horny locule walls must supply the dehiscence mechanism, but I have not been able to see from their cell structure what the detailed basis of this might be. It is notable that whereas newly-dehisced fresh fruit can be made to close up again when soaked in hot water, ripe intact fruit that has been preserved in alcohol has only feeble powers of dehiscence.

A note for ecologists: the sparsely silky new growth has caused at least one AK collector to name sapling material of hinau (*Elaeocarpus dentatus*) as tawari. And hinau is also like tawari in usually having a few senescing reddish leaves in its crown, a useful feature to tell these trees at a distance from adult lancewoods, etc.

References

- Bentham, G. & Hooker, J. D. 1883: *Genera Plantarum*. Lovell Reeve, London.
Moore, L. B. 1982: Tawari and its fruits. *Auckland Bot. Soc. Newsl.* 37(1): 11.
Moore, L. B. & Irwin, J. B. 1978: *The Oxford Book of New Zealand Plants*. O.U.P., Wellington.



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IXERBA fruit & seeds

Figure 1. Fruit and seeds of *Ixerba brexioides*
 Upper left and right: fruit, undehiscent, entire and in cross-section (one locule fertile, its mericarp wall x-stippled, seed-coat hatched, aborted seed stippled, air-space black).
 Lower left and right: dehiscent fruit; two detached mericarps; a pair of seeds, one sectioned to show fleshy funicle with vascular strand, testa, endosperm and embryo.