

Book Review: "Fruits of the Rainforest: a guide to fruits in Australian tropical rain forests" by Wendy Cooper and William T. Cooper. Geo Productions, Chatswood N.S.W. 1994. 327 pp. 30 x 21 cm, \$85. 00

Rhys Gardner

Writers on tropical forests sometimes warn that the plant riches of these places are, contrary to popular opinion, not especially accessible, and that a first impression is likely to be of a scarcity of flowers and fruit; except along river edges, and in canopy gaps and old clearings, one may have to be satisfied with a drift of scent, the sight of a few cauliflorous species, and occasional seeds and pieces of chewed husk on the forest floor.

Even if one is working or collecting in tall forest, getting to see fruit, especially fully-ripe ones, can be a frustrating affair. They may be high up, and often animals have gotten to them first; they may be damaged in the collecting process, and they generally lose much of their magic when dried and curated. Their seeds often remain hidden and unappreciated.

In the last ten years, following a move to North Queensland, well-known Australian ornithological painter Bill Cooper and his wife Wendy have redressed this situation for northern Australia, and present in this lovely book paintings of the fruit and seeds of 626 species in 340 genera, in more than 100 families — a cornucopia of pinks, purples, yellows, oranges, blues, blacks and whites, in what to New Zealand eyes is an undreamed-of medley of shapes and colours. The tendency probably has been to select the most colorful representatives of the more than 2000 species in northern Queensland, and fleshy fruits and seeds predominate: fruits with fleshy bracteoles or peduncles, fruit walls with swollen outgrowths, drupes and berries, arils, sarcotestas, elaiosomes and funicular appendages.

Throughout the pages appear some of the lucky Australians this psychedelic feast is intended for — the cassowary (rather dissatisfied-looking despite being king of the forest floor and capacious consumer of even the crustiest gobstopper), Victoria's riflebird, the double-eyed fig parrot, the magnificent Wampoo pigeon, the figbird, the musky rat-kangaroo and the white-tailed rat, a butterfly, a moth, and spectacled flying-foxes. Some of these animals and their food plants are shown in splendid double page spreads.

Usually only four or five species are presented on each page, at life size, so the diversity and colour never overwhelms. There are numerous figs, lilly pillies, and laurlean drupes, but because the arrangement is alphabetical by genera most pages have a variety of taxa and fruit types. A good game for us generically-challenged New Zealanders is to try to guess families. For example, we might recognize the Australian relatives of *Laurelia*, and see in the fruit of *Crispiloba* of the Aleuosmiaceae the angular chunky seeds of our own genus.

Facing the paintings are the pages of text with marginal sketches of leaves. The botanical notes have been kept simple, and one might want to look closely at this work with a book that treats family and generic characters more technically (though nobody will mind much, for example, that pyrenes and stones have sometimes been called "seeds"). We are given many interesting snippets of information: the flesh of the fruits of the verbenaceous *Faradaya* and *Gmelina* is white but turns yellow when handled; *Syzygium* species occasionally produce crops of entirely seedless fruit; the cut fruit of a *Garcinia* smells like that of kiwi-fruit; and that the leaves of the euphorbiaceous *Breynia stipitata*, dwarf's cherry, have a foetid odour (rare outside Rubiaceae ?).

There is a simplification which is a bit out of place in a book that touches on the edibility, and therefore the chemical characteristics, of plants: it is said several times that particular leaves have "gland dots" or "oil dots". I would not think this was true in the case of *Corynocarpus cribbianus*, nor for species of *Chionanthus*, *Crispiloba*, *Diospyros*, *Psychotria* or *Symplocos*. Translucent patterns or dots can be caused by columnar sclereids, "colour cells", or sunken mushroom-shaped hairs, as well as by glandular cavities.

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.