THE UNFAMILIAR PLANT: HOW DO YOU IDENTIFY IT? WITH DIFFICULTY!

EDITH SHAW
84 North Road, Nelson. Email: treelady@actrix.co.nz

This is a true account of my efforts to identify an uncommon tree. In 1991 I began working for Nikau Gardens, a native plant nursery at 411 Nayland Road, Stoke, Nelson. In the mid 1990s I noticed a big tree growing in the driveway shrubbery, which sometimes has the appearance of a native and on other occasions looks foreign. It is about 12 m tall with nine trunks ranging from 30 to 170 cm in circumference when measured 1 m from the ground. Its bark is grey and deeply furrowed, like that of a very old hinau tree. The leaves are 13 cm long by 4-5 cm wide, opposite, oblong to elliptic, coriaceous, entire, and borne on stout petioles 2 cm long. Their upper surfaces are deep dark green and glossy, whereas the lower surfaces are dull yellow green. The midrib is prominent on both surfaces, but more so and raised on the lower surface. Young stems are tetragonous, with numerous lenticels. Suddenly, one day in spring, I noticed this impressive tree was covered in white flowers. As I had no ideas as to its family or species, I asked numerous people, but no one could give me a lead.

I took a flowering specimen home and consulted "The Oxford Book of NZ Plants" (Moore and Irwin 1978), which has an excellent key to dicotyledonous families, covering both native and foreign plants. Hoping that I might at least place the tree in a family, I carefully followed the symbols for floral and foliar characters and finished up with the Oleaceae. "An Olive?" I squawked in disbelief.

I gazed out at my European olive in the garden. Neither this nor the specimen in my hand showed any apparent similarities. Did I key it out correctly? A repeat performance gave the same answer, until I discovered two similarities: opposite leaves and grey bark. Tired and hungry by now, I put the specimen aside in water.

Next day, refreshed and ready to work on my unidentified specimen, an unexpected sight greeted me; the corollas had fallen from all the flowers and lay on the bench like dainty coronets. The petals were fused at the base and their upper portions were as though they had been snipped with pinking shears. I threw the specimen out the window, as I do not like working with material that is less than fresh. Next week I collected another specimen, but on the way home was delayed through having a

long chat with a school friend. By the time I arrived home, the corollas to fallen off and I had to confess my bad luck to my boss, Hugh Griffin. Though his family has owned the property for over 50 years, none of them had a name for this mysterious tree. Hugh suggested that it may have come from the Chatham Islands, because nearby there is a collection of Chatham Island trees, which had been planted by a previous owner.

I consulted friends who had lived and worked on the Chatham Islands. "No," they said, "There is nothing like that on the Chatham Islands, but there is something like it in the Dargaville or Whangarei areas." I consulted "The Native Trees of New Zealand" (Salmon 2001) and Volume I of the Flora of New Zealand" (Allan 1961) for details of our only native genus, *Nestegis*, in the Oleaceae. After eliminating the species with narrow-linear leaves, I was left with *N. apetala*. Its leaves appear very similar to those of my specimen, but according to Allan's Flora *N. apetala* is only 6 m tall, and there are several other details that do not fit the Nikau Garden specimen. Could the latter be a hybrid between *N. apetala* and *N. montana*, as all the *Nestegis* species are growing in the nursery?

A year or two passed without anyone coming up with a better solution. For a short time the mystery tree was called *Nestegis* hybrid, but I was uncomfortable with this conclusion, and as I toiled in the nursery I often pondered about the true identity of this beautiful, luxuriant tree. Year after year it flowers profusely, yet no one at the nursery had ever seen fruit or noticed pollinators. I considered the possibility that the tree is dioecious, but would have needed to wait for another flowering season to see if this was revealed in the structure of the flowers.

Another year passed and Nelson had an unprecedented long, hot, dry summer. When autumn came the drought broke and I returned to work. As I drove into the driveway I cast my eyes to the right, jammed on the brakes and jumped out of the car; the mystery tree was covered in dark red tawa-like fruit! I immediately went to the office and announced my discovery. Astonished, we all went out to inspect our '*Nestegis*'. That same day I took a specimen and a handful of fruit to the Department of Conservation, where the local botanists announced that it was *N. apetala*. According to Allan's Flora the fruit of *N. apetala* are 8-9 mm long, compared with 2.5 cm long in my sample, but the DOC botanists pointed out that the Nikau Garden tree is very old, well fed and watered, and exceedingly large and healthy, and therefore likely to have extra large fruit. They also mentioned how similar the leaves of my plant are to those of *N. apetala* as pictured in Salmon's book. I pointed out the absence of

a corolla in Salmon's illustration, and left the DOC office despondent and unconvinced.

Another year or two later when Bill Sykes of Landcare was visiting Nelson, I told him about this unusual tree. Thereupon I collected specimens, met Bill and related the whole saga about this strange plant. Bill sat with a big smile and a twinkle in his eye and eventually said, "I am wondering why you choose *Nestegis apetala*? And what do you think 'apetala' means?" I replied "Apetala means no petals and I assumed that the name was applied to *N. apetala* because Allan's Flora says that the inflorescence is 'fugacious', that is it falls off, petals and all." By now Bill had a really big smile as he gently explained, " 'a' denotes absence; apetala – no petals; afoliatus or aphyllus– leafless; alepis – scaleless, acaulis – stemless." Dear Professional Botanist, now you know how easy it is for amateur botanists to twist words to fit their needs.

So I got part of the puzzle right and then I got misled. Yes, the mystery plant belongs to the Oleaceae but it is *Picconia excelsa* - the Canary Island olive! Since the drought, it has never again produced fruit. When in Nelson do come and visit Nikau Gardens and inspect this impressive tree.

REFERENCES

Allan, H. H. 1961: "Flora of New Zealand." Vol. I. Wellington, Government Printer. 1085 p.

Moore, L. B.; Irwin, J .B. 1978: "The Oxford Book of New Zealand Plants". Oxford University Press, Wellington. 234 p.

Salmon, J. T. 2001: "The Native Trees of New Zealand." 384 p.

Editor's notes: Edith's travails led me to delve a little further into olives. All four New Zealand olives, or maire, were separated as an endemic genus from *Olea* in 1957 mainly because they lack corollas (although two Asian species of *Olea* also lack corollas). They were at first named *Gymnelaea*, but then it was found that our olives had already been put in their own genus, *Nestegis*, 120 years earlier, so this forgotten name had to be resurrected. (P. S. Green, 2004: The genus *Nestegis* in New Zealand. *Journal of the Arnold Arboretum* 44: 377-389).

The herbarium at Landcare Research at Lincoln contains a few specimens of the Canary Island olive from private gardens in the Canterbury region, all collected by Bill Sykes – of course.

Fig 1 (left): Mature tree of Canary Island olive.

Fig 2 (above): foliage of the Canary Island olive.