Scientific name	Maori name	English name
Calvatia cyathiformis (bottom of Kowhai Track)		lilac puffball
Conchomyces bursaeformis		
Cookeina colensoi		cup fungus
Coprinus micaceus		mica or glistening ink cap
Coprinus plicatilis		Japanese umbrella
Cyclomyces tabacinus		
Dacrymyces stillatus (seen 2000 edge of Hinau Track)		
*Favolaschia calocera**		orange pore fungi
Ganoderma australe		perennial bracket fungus, artist's conk
G. aff. *mastoporum*		
Geastrum sp.		earthstar
Hericium coralloides	pekepeke kiore	fungus icicles
Ileodictyon cibarium		white basket fungus, lattice fungus
Lycoperdon sp.		common puffball

Scientific name	Maori name	English name
Orbilia deliculata		small orange spots on dead wood
Oudemansiella australis		
?*Pleurotus* spp. (grey cap; orange brown cap; white all over)		oyster mushroom
Podoscypha petalodes		wine glass fungus
Russula macrocystidiata		purple russula
Schizophyllum commune		split gills
Scutellinia badioberbis		
S. sp. (growing on ground)		
Trametes versicolor		rainbow bracket
Xylaria hypoxylon		candlesnuff or stags horn fungus
X. tuberiformis		
Myxomycete (Slime Moulds)		
Arcyria denudata		
Lycogala epidendrum		

Tony Druce's table of hybrid New Zealand coprosmas

Rhys Gardner

Coprosma (Rubiaceae) is generally thought to be rife with hybridism, to the extent that one is tempted to identify cultivars and other oddities by less than proper means, like Extended Staring (leaf shape), Fuzzy Logic (stipules), or Ask a Reliable Nurseryman (Metcalf 1987; Hutchins 1995).

But before calling a coprosma's parentage into question two important sets of data should be consulted. The first is a list of chromosome numbers (Beuzenberg 1983; Dawson 2000). The diploid (2n) number for the genus is 44, i.e., 22 pairs of chromosomes, and is found throughout the large-leaved coprosmas and in some of the small-leaved ones as well, e.g. *C. arborea*, *C. propinqua* and *C. rhamnoides*. These species can be expected to fertilise one another successfully, though whether they actually do so depends on factors like flowering-time overlap. In the small-leaved coprosmas, by contrast, polyploidy is common, with counts ranging from 88 (tetraploid) to 132, c. 154, and even c. 220 in *C. atropurpurea*. Sexually-viable polyploid hybrids would generally (not always) come from crosses on the same level of ploidy.

The chromosome information indicates what hybrids might be possible. The second lot of data is what we are told by the Book of Nature, that is, as transcribed by the late A. P. (Tony) Druce in his manuscript "Check-list of *Coprosma* hybrids (wild and cultivated) recorded in New Zealand". My copy is the 1978 version, and represents Tony's twenty or so years of collecting, growing and examining coprosmas. In it the numerous published crosses are listed, with determinations of the voucher specimens if extant. Many hybrids are debunked, or, in Tony's Popperian way, marked "no specimens found". Of particular interest to Aucklanders, for example, is that there is no evidence that *C. grandifolia* crosses with *C. lucida* or *C. robusta* (even though all are diploid). The summarizing table of this work is the essential field-tool, and is reproduced here (Fig. 1), with one additional hybrid indicated.

Acknowledgements
Graeme Jane and Peter de Lange contributed words of advice.

References

Beuzenberg, E. 1983: Contributions to a chromosome atlas of the New Zealand flora — 24. Coprosma. New Zealand Journal of Botany 21: 9-12.

Dawson, M. I. 2000: Index of chromosome numbers of indigenous New Zealand spermatophytes. New Zealand Journal of Botany 38: 47-150.

Hutchins, G. 1995: Notes on cultivated New Zealand and Australian coprosmas. New Plantsman 2: 12-37.

Metcalf, L. J. 1987. Cultivation of New Zealand trees and shrubs. Revd edn. Reed Methuen, Auckland.

Figure 1 opposite refers.

DIAGRAMMIATIC SUMMARY OF ACCEPTED HYBRIDS

----x---- hybrids rare: 23, 8 of them doubtful (?)

——X—— hybrids occasionally seen, locally common: 7

═══X═══ hybrids common: 1

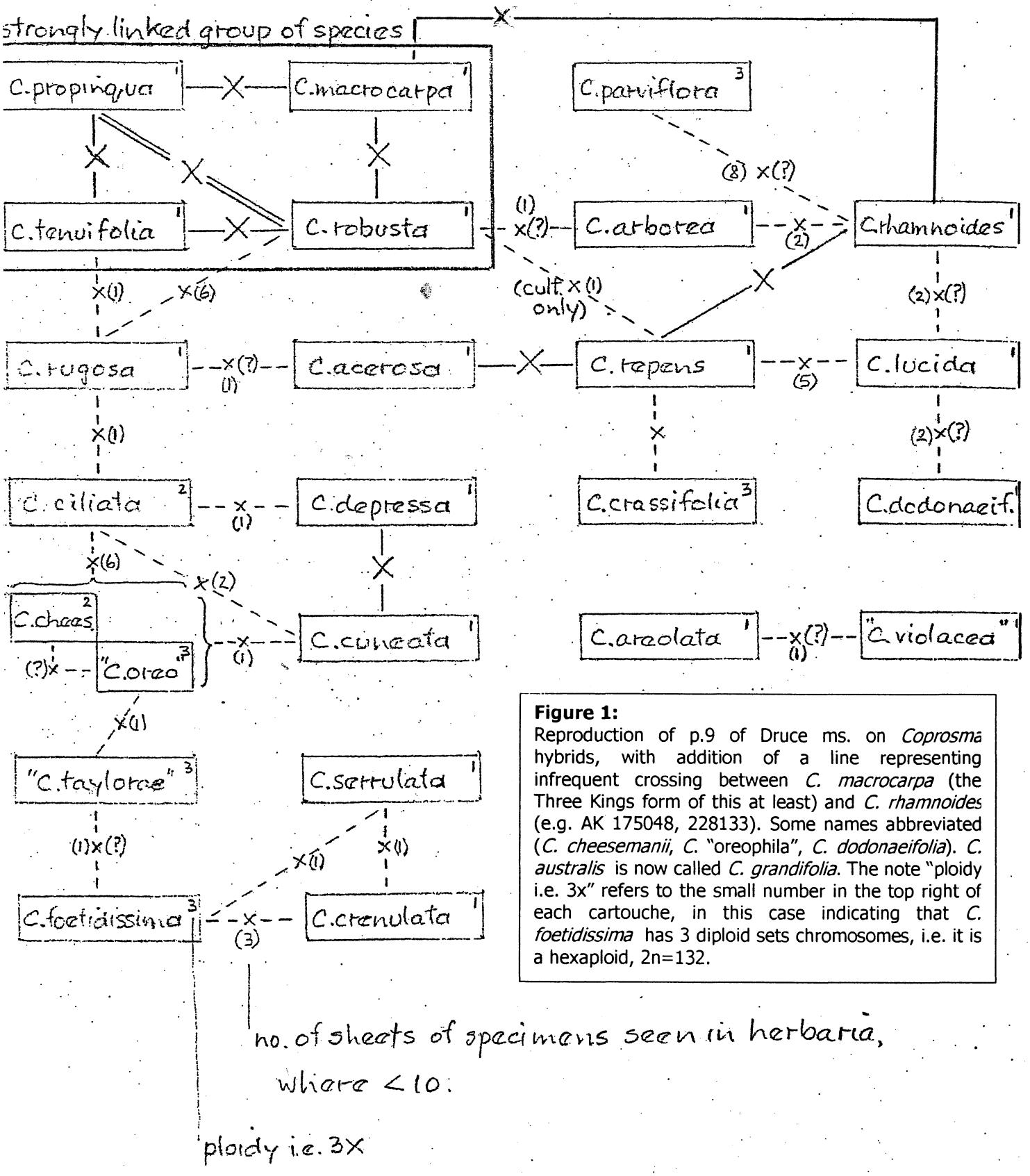

Figure 1:
Reproduction of p.9 of Druce ms. on *Coprosma* hybrids, with addition of a line representing infrequent crossing between *C. macrocarpa* (the Three Kings form of this at least) and *C. rhamnoides* (e.g. AK 175048, 228133). Some names abbreviated (*C. cheesemanii*, *C.* "oreophila", *C. dodonaeifolia*). *C. australis* is now called *C. grandifolia*. The note "ploidy i.e. 3x" refers to the small number in the top right of each cartouche, in this case indicating that *C. foetidissima* has 3 diploid sets chromosomes, i.e. it is a hexaploid, 2n=132.