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CHROMOSOME NUMBER IN TWO PRIMITIVE DICOTS,
XYMALOS MONOSPORA (MONIMIACEAE) AND
PIPTOCALYX MOOREI (TRIMENIACEAE)

Xymalos monospora (Harvey) Baill. $2n = 40-42$. Zimbabwe-Rhodesia, Bunga Forest, Umtali distr., Müller s.n. (13 Aug. 1978) (SRGH).

Chromosomes of *Xymalos* are small in size, ranging from 1.5–2.5 μm and comparable in appearance to those of other Monimiaceae studied by Goldblatt (1974). Small size and high number made an accurate count for *Xymalos* difficult, especially as the material available was very limited.

Piptocalyx moorei Oliver ex. Benth. $2n = 16$. Australia, New South Wales, North Coast, Floyd 1104 (NSW).

The chromosomes of *Piptocalyx* are substantially larger than those of *Xymalos* and range from 3–4.5 μm in size. Details of chromosome morphology are clearly visible and are illustrated in Fig. 1.

Xymalos is a monotypic genus of eastern south-tropical Africa, usually assigned to Monimiaceae s.l. The only other African genus is the tropical West African *Glossocalyx*, one of three genera of Monimiaceae-Siparunoideae (sometimes segregated as Siparunaceae); however, Monimiaceae-Monimioideae are well represented on the offshore African islands of Madagascar and the Mascarenes. An alternative systematic position for *Xymalos* was proposed by Hutchinson (1964) who placed the genus in the otherwise Pacific family Trimeniaceae. This treatment is not generally accepted (Schodde, 1970; Thorne, 1974) but was followed by Dyer (1975) in his revised generic flora of southern Africa.

There are strong cytological differences between Monimiaceae and Trimeniaceae, the former having base numbers at a palaeohexaploid level, $x = 22-19$. Base numbers for Monimiaceae s.s. (excluding Siparunaceae, $x = 22$, and Atherospermataceae, $x = 22$) are mostly $x = 19$ with counts also for $n = 22$ and $n = 18$ in two genera (Ehrendorfer et al., 1968; Goldblatt, 1974), while Trimeniaceae



Goldblatt, Peter and Briggs, Barbara Gillian. 1979. "Chromosome Number in Two Primitive Dicots, *Xymalos Monospora* (Monimiaceae) and *Piptocalyx Moorei* (Trimeniaceae)." *Annals of the Missouri Botanical Garden* 66, 898–899.
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