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## **Sorbus Promiscuousness**

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Recent press publicity has drawn attention to the existence of a new species of *Sorbus* found in Glen Catacol in the northwest of Arran and so it might be worthwhile making a brief comparison between what is happening in Arran and the West End of Glasgow, unlikely though that may appear. Dickson (1991) lists two hybrids amongst various *Sorbus* species discovered in Glasgow’s West End during the compilation of data in the 1980’s for the ‘Changing Flora of Glasgow’ project. These are: *S. x thuringiaca* [between rowan (*S. aucuparia*) and the common whitebeam (*S. aria*)] and *S. x pinnatifida* [between rowan and the Swedish whitebeam (*S. intermedia*)]. In connection with the latter it is written, “In the Glasgow area only one obviously self-sown tree was known ..... in Novar Lane, Hyndland where it was discovered by June McKay. It may have been the only such wild hybrid in Scotland. .... Nearby grew the putative parents. .... The leaves have two or three basal leaflets, then a lobed, short, somewhat triangular apex.”. About June, 2006 Mogens Hansen lent me a copy of a recent paper from *Watsonia* about a new endemic, *Sorbus pseudomeinichii*, from Arran. This plant is the hybrid about which there has been so much media publicity this year (2007). Phil Lusby, in the herbarium of RBGE, found an unfamiliar *Sorbus* collected in Arran by D. McVean in 1949 and thought it likely to be a cross between the Arran service tree (*S. pseudofennica*) and rowan. Lusby found the hybrid in Glen Catacol and subsequent molecular analysis confirmed his idea. So armed with the paper from *Watsonia* I travelled to the northwest of Arran in autumn 2006. I have to say that the thrill of finding this plant in its native habitat was for me akin to that of finding a new species (something I’ve never done). Not only that but the identity of the *Sorbus* I’d found was confirmed by an aluminium tag attached to the tree (actually a number of stems sprouting from a fallen main trunk), which was growing in a barely accessible location near the foot of a waterfall. But what of the Glasgow connection? The leaves of this Arran tree were not identical to those in Novar Lane, having 4–5 pairs of leaflets compared to 2–3 in the Glasgow specimen. Rowan has a diploid (2n) chromosome number of 34; both Swedish whitebeam [Glasgow] and *S. pseudofennica* [Arran] have 4n = 68. So the *S. x pinnatifida* found by June Mackay and *S. x pseudomeinichii*, the new microspecies from Arran, both have triploid (3n) chromosome numbers of 51 (17 from one parent and 34 from the other), a rare state of affairs. Each of these triploids has rowan as one parent.

The other parents are *S. intermedia* and *S. pseudofennica* respectively. Whereas *S. pseudofennica* has rowan in its immediate parentage, *S. intermedia* has the wild service tree (*S. torminalis*). [Each has the Arran whitebeam (*S. arranensis*) as the other parent (McAllister, 1986; 2005).] Rowan and the wild service tree both have 34 chromosomes but the former has pinnate leaves and the latter has lobed leaves. Having the same chromosome number does not make two species identical. So the extra leaflets (pinnae) in *S. pseudomeinichii* compared with *S. pinnatifida* are explained by the presence of rowan instead of the wild service tree in the ‘grandparentage’ of the Arran tree. Sadly June’s discovery disappeared (tidied up?) some year’s ago but the occurrence of such unusual hybrids exemplifies the relative ease with which interspecific (even intergeneric according to some classifications) hybrids can occur within the Rosaceae. (see previous papers in *The Glasgow Naturalist* about *Cotoneaster* hybrids (Macpherson & Lindsay, 2002))

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