

A NOTE ON THE STATUS OF THE ENIGMATIC MONOTYPIC GENUS ADELOSA (LABIATAE)

R.P.J. DE KOK

Centre for Plant Biodiversity Research, Australian National Herbarium, CSIRO,
G.P.O. Box 1600, Canberra, ACT 2601, Australia

SUMMARY

The type specimen of *Adelosa microphilla* Blume has been examined and the results compared with the morphology of several other genera within the Labiatae. On the basis of this comparison it was concluded that *Adelosa microphilla* is most likely to be synonymous with a species of *Clerodendrum* L.

Key words: *Adelosa*, *Clerodendrum*, Madagascar.

INTRODUCTION

The monotypic genus *Adelosa* was first described by Blume in 1850, and is based on a single specimen (*Pervillé 626*) collected in 1841 at Ambango (Madagascar). No further material of this species has ever been found. Blume received his specimen via the Paris Herbarium and it is now preserved at L. When Blume received the specimen, it had been assigned to the genus *Anasser* Juss. which was then a genus placed within the Loganiaceae. Blume disagreed with the placement of the specimen within this genus and family on the basis of the morphology of the corolla, the calyx and on the organisation of the ovary. He had no doubt that it belonged within the Verbenaceae, but given the unique shape of the fruit and seed he could not place it within any known genus. He reported the fruit as unilocular with a single seed with a membranous margin. On the basis of this unique set of fruit and seed characters for the Verbenaceae, he described a new genus and placed it in proximity of *Congea* Roxb. The type specimen as preserved in Leiden (no. 908.265-539) has a number of flower buds, but now lacks the fruit material that was described by Blume (1850).

All later authors accepted the placement of the genus in the Verbenaceae. The position of the genus within the family has been more problematic. Both Bentham & Hooker (1873) and Walpers (1852–1853) placed it in the Viticeae, near *Congea*. However, Baillon (1891) did not accept the genus as a separate taxon and placed it in synonymy under *Clerodendrum*. Briquet (1895) also had doubts about the validity of the genus. In his comments, he remarks that the genus is completely unknown to him, but from the description of Blume (1850) he concluded that despite the very different fruit and seed characters, the taxon seemed very similar to species of *Clerodendrum* L. On the basis of those characters, he eventually placed it within the Viticoideae, near *Premna* L. Moldenke, in his treatment of the Madagascan Verbenaceae, considered

the genus to be closely aligned with both *Premna* and *Clerodendrum* (Moldenke, 1956), but he continued to place it in the Viticoideae (Moldenke, 1971). Cantino did not include the genus in his cladistic analysis of the Labiatae because he had not seen any material of the genus, but placed it provisionally in the Viticoideae following Moldenke's classification (Cantino et al., 1992).

DISCUSSION

If the genus belongs to the Viticoideae and is closely associated with *Premna* and *Congea* then it is most likely that it has a fruit similar to the ones in those genera (a four-locular pyrene). If it is more closely aligned to *Clerodendrum* then it should have a fruit that consists of four unilocular pyrenes (or fewer by abortion). This division in the ovaries is usually already obvious in immature material. In *Clerodendrum* and its allies, the ovaries are lobed into four equal parts (see Verdcourt, 1992: f. 13.5, 7, 15.3, 17.5), although sometimes this division can be very obscure (see Verdcourt, 1992: f. 19.5, 7 & 20.5, 7). In *Premna* the ovary is round with no or hardly any division or even a groove visible on the exterior surface (see Verdcourt, 1992: f. 10.7, 8). In the original description the ovaries are characterised as obscurely four-grooved and incompletely four-locular with one ovule in each locule (Blume, 1850). This description is almost intermediate between *Premna* and *Clerodendrum*. The obscurely four-grooved ovary could be an immature *Clerodendrum* or a mature *Premna*. The observation that the division between the locules is incomplete suggests that the examined material was immature.

In habit the *Adelosa* specimen superficially resembles some species of the genus *Clerodendrum* L. A dissection of one of the flower buds reveals that the ovary consists of four unilocular lobes with a style that is fixed in between the four parts. The lobes are only united with one another at the base. This kind of organisation is completely similar to the ovaries that are found in species of *Clerodendrum* and its allied genera (*Oxera* Labill., *Faradaya* F. Muell., *Hosea* Ridl. and *Huxleya* Ewart & Rees). The shape and the organisation of the ovaries are very similar to the *Faradaya amicorum* (Seem.) Seem. specimen as depicted in De Kok & Mabberley (1999: f. 1e). Using the key for *Clerodendrum* in Moldenke's (1956) treatment of the Madagascar species of the genus, the *Adelosa* specimen keys out near *C. arenarium* Baker or *C. myrtifolium* Moldenke. Particular points of resemblance include the membranous small (up to 5.4 cm long) leaves with almost entire margins and a campanulate almost glabrous calyx; these resemble some specimens of *C. arenarium* (*Randriambololona et al.* 7 (MO 3145697); *McPherson & Van der Werff* 16543 (MO 4895691) & *Schatz & Sterling* 2841 (MO 3769629)) very closely.

On the basis of the re-examination of the type specimen of *Adelosa*, it is concluded that the type specimen of *Adelosa* Blume is a representative of the genus *Clerodendrum* and is most likely to be *C. arenarium* or *C. myrtifolium* or a closely related species. This could not be checked with a DNA analysis as I was unable to isolate usable DNA. The most likely explanation for the strange fruit as described by Blume (1850) is that it was either a galled fruit or ovary (a common phenomenon within *Clerodendrum* species; see Verdcourt (1992): notes of *C. schweinfurthii* Gürke; De Kok & Atkins, 1997 and references therein) or an abnormal developed fruit.

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