

Caffeine Content Distribution among *Mascarocoffea* Species in Madagascar

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SUMMARY

The wild coffee species of Madagascar and neighbouring islands in the *Mascarocoffea* section has been believed to be caffeine free during almost a century with the exception of *Coffea mauritiana* which present a very low content (0.07%) (Bertrand, 1905; Rossi, 1933; Chevalier, 1938; Chassevent et al., 1974). Unequivocal evidence for the presence of caffeine was published for the first time by Clifford et al. in 1991.

The investigation of caffeine content was extended to 90 populations within 47 species distributed in the 6 botanical subsections of *Mascarocoffea*. No caffeine or only trace was found in 58 populations represented by 30 species distributed in the 6 subsections. 28 populations of 17 species distributed in the 6 subsections also contained very low amount (0.01-0.20% dry weight). While only the *Verae* subsection with all populations of *C. kianjavatensis* and *C. lancifolia* presented caffeine content (0.20-0.80%) as high as some wild east African species such as *C. eugenioides* and *C. sessiliflora*. Nevertheless, no caffeine was found in all the 18 leaf samples of 10 species including *C. kianjavatensis* and *C. lancifolia*.

These results completed the distribution of caffeine content in *Mascarocoffea* previously reported by Rakotomalala et al. (1992). Other particular traits variation in *Mascarocoffea* species will be discussed in relation with caffeine content distribution.