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## Exploration of antioxidant and nutritional properties of *Syzygium calophyllifolium* fruit

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*Syzygium calophyllifolium* belongs to the family Myrtaceae. It is endemic to the medicinal wealth of Western Ghats of India and used as wild edible, rich in essential nutrients fruit by tribal peoples due to its traditional medicinal properties. *S. calophyllifolium* fruit and bark is placed in the aching tooth and inflammation for relief. Seed extract has shown profound antidiabetic effect. The present investigation was carried out to evaluate the antioxidant activity and nutritional content of *S. calophyllifolium* fruit. The extraction was carried out in Soxhlet apparatus using petroleum ether, ethyl acetate, methanol and, finally, with hot water maceration. Methanol extract of fruit showed good nitric oxide radical scavenging (65.6%) and metal chelating activity (44.1 mg EDTA equivalents/ g extract). The analysis of amino acid was done using amino acid analyzer (HPLC- LC 10 AS). It was found that almost all essential and non-essential amino acids were present with arginine (8.4 % of protein) and cysteine (7.4 % of protein) in highest amounts. The results were compared with WHO/FAO recommended levels of amino acids. The mineral estimation showed the presence of calcium (12200 part per million) nitrogen (8800 part per million) in superior quantity when compared to other minerals. High amount of proteins (20.45 g/100g) and carbohydrates (41.35 g/100g) were also estimated in this fruit. This is the first report on the nutritional composition of *S. Calophyllifolium* which will enhance its importance as a source of medicinal food, and help in the exploration of nutraceutical properties of the fruit with its wide commercialization in Indian as well as International market.

### Biography

Parimelazhagan Thangaraj worked as Scientist in Defence Research & Development Organization (DRDO) Ministry of Defence, Govt. of India. (From Jan 2004 to Jan 2008) Worked as Jr. Scientist in Rubber Research Institute of India, Ministry of Commerce, Govt. of India, Tura, Meghalaya (From June 2000 to January 2004). His Area of specialization is Phytomedicine. His awards include Bagged National Science Day Medal 2005 from DRDO HQ, New Delhi, Laboratory Scientist of the Year award 2005 from DRDO and Young Scientist award 2008 from ISMPHP at Sri Venkateshwara University, Tirupathi.

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