

Temporal variation of flowering and fruiting of *Calotropis gigantea* in Southern province, Sri Lanka

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Calotropis gigantea is a native plant in several Asian countries including Sri Lanka. It is a drought resistant, salt tolerant plant with aurvedic medicinal values. However, the plant is considered as an invasive species in countries like Australia, Brazil, Mexico and USA. Knowledge on the flowering and fruiting associated with plant reproduction is important in studying distribution of the plant, conservation purposes in native countries, as well as to adapt measures to control invasiveness in introduced countries. Present study aimed to find out temporal variation of flowering and fruiting of *C. gigantea* in Southern Province of Sri Lanka. Monthly field visits were conducted in 11 selected sites representing three districts; Matara, Galle and Hambantota of Southern Province from August 2015- August 2016. Presence/absence of flowering, fruiting and number of fruits in each selected plant in every site were recorded. Floral production in plant studied was observed throughout the year. Fruit production varied according to individuality indicating fruits per tree as 0 to 177. Fruiting varied during the year and the highest fruiting (81.8%) was in May while the lowest fruiting (0 %) observed in November. Correlations indicated that rainfall ($p = 0.025$), relative humidity (maximum) ($p = 0.026$) and temperature (maximum) ($p = 0.025$) facilitates the *Calotropis* fruit production. In Galle district, temperature (minimum) also supports ($p=0.048$) the *Calotropis* fruit production. Present study provides information on temporal variation of flowering and fruiting of *Calotropis* in selected regions of Sri Lanka, which has not been recorded before.

Keywords: calotropis flowering, calotropis fruiting and invasive calotropis

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