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Temporal variation of flower visitors of *Calotropis gigantea* (L.) in Southern Province of Sri Lanka

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Sri Lanka is rich with highly diverse medicinal plants. Among them, *Calotropis gigantea* is a native plant having Ayurvedic value. It is however invasive in countries like Australia and the USA. Information on flower visitors associated with the *Calotropis* plant and their temporal variation becomes important for experimental purposes and to conserve them in their native range, and to eradicate the plant when invasive in an introduced range. The present study investigated flower visitors associated with *C. gigantea* in 11 sites of three districts in the Southern Province of Sri Lanka, i.e., Matara (03), Hambantota (04) and Galle (04). Monthly sampling was done from August 2015 to August 2016 from 6.00 am to 6.00 pm. Monthly rainfall data relevant to the study period was obtained from the Sri Lankan Meteorology Department. *Danaus chrysippus* (L.), *Xylocopa caerulea* (Fabricius), *Xylocopa fenestrate* (Fabricius) and *Apis cerana* (Fabricius) were the flower visitors of the plant. The most frequent species were *Xylocopa* spp. Their frequency of visits varied significantly among 11 sites ($F = 8.18$, $p<0.001$) having the highest frequency in Matara sites and the lowest in Hambantota. *Apis cerana* was uncommon in all districts while *D. chrysippus* was more frequent in Matara district. The highest mean flower visitor abundance was recorded from Matara district while the lowest was in Hambantota district where it may be due to higher temperature, wind velocity and solar radiation intensity. Monthly rainfall however had no influence on their visiting frequencies ($r=-0.082$, $p= 0.352$). Flower visitors were high in March to May while it was low in August in all districts. Abundance of *C. gigantea* fruits had a positive correlation with the abundance of *D. chrysippus* ($r=0.094$, $p<0.001$) and *Xylocopa* spp. ($r=0.160$, $p<0.001$) indicating they might play a significant role in *Calotropis* pollination.

Keywords: *Calotropis gigantea,* Medicinal plant, Flower visitors, *Xylocopa spp.*

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