

FLORAL REWARDS OF SOME SELECTED ORNAMENTAL *THUNBERGIA* SPECIES

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Substantial declines in abundance and diversity of pollinators have been widely documented and the loss of pollinators is likely to have serious consequences for biodiversity and crop production. This has led to the development of various strategies to restore pollinator abundance and diversity. One strategy that has been tried with considerable success is the provision of floral resources for pollinators. Flowering plants used in landscaping can be successfully used to provide floral resources. Therefore, the present study was conducted with the objective of the identification of floral rewards and animal visitation of three popular ornamental *Thunbergia* species viz. *T. grandiflora*, *T. grandiflora* 'Alba' and *T. erecta*. Thirty flower buds per species were selected and floral level phenology, nectar production and animal visitation patterns were investigated. All flowers start to open during the midnight and reach the fully bloomed stage in the morning. Duration of the flowers of both *T. grandiflora* species was 35 hours while it was 10 hours in *T. erecta*. Peak nectar production time for *T. grandiflora* with violet-blue flowers was at 5.00 pm followed by peak visitation of Carpenter bees (*Xylocopa* spp.), with another peak visitation of both Carpenter bees and Stripped squirrels at 8.00 am. In *T. grandiflora* 'Alba', peak nectar production time was 8.00 am and only Stripped squirrels that damaged the corolla to rob nectar visited flowers. Peak nectar production time for *T. erecta* was at 1.00 pm and Small branded shift butterfly with peak visitations at 9.00 - 10.00 am and 3.00 - 4.00 pm, and Blue banded bee species with peak visitations at 7.00 - 8.00 am and 2.00 - 3.00 pm were observed as visitors. However, no floral visitors were observed in *T. grandiflora* 'Alba' except nectar robbers (Stripped squirrels). The highest damage of 70% to the flowers was recorded in *T. grandiflora* while lowest (25%) was recorded in *T. erecta*. Compared to other species, a significantly higher nectar volume ($11.6 \pm 0.28 \mu\text{l}$), sugar concentration ($50.05 \pm 0.36 \%$) and energetic value ($257.37 \pm 4.56 \text{ cal}$) was recorded in *T. grandiflora* while significantly lower values were recorded in *T. erecta*. Hence, best floral rewards are offered by *T. grandiflora* with violet flowers compared to other two species and it can be promoted in landscaping to provide floral resources.

Keywords: Floral rewards, Floral visitors, Nectar, Ornamental, *Thunbergia*