

Relative abundance and diversity of insect foragers associated with inflorescence in dwarf varieties of coconut (*Cocos nucifera* L.)

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Ecosystem services offered by insect foragers in the coconut system are exceptional in utilizing pollen and nectar resources and, thereafter, rewarding effective pollination in coconut palms. The pollinator community recorded from dwarf varieties of coconut comprised 35 insect species, out of which 30 could be identified, belonging to 6 orders and 17 families. Insect fauna belonging to families Formicidae (ants), Apidae (bees) under Hymenoptera and Curculionidae (weevils) under Coleoptera were recorded in abundance from the coconut inflorescence. However, a considerable quantity of pollen grains clings onto the body parts of bees and assumes likely pollination services in coconut. Ants, though noticed in large numbers, may not be involved in pollination, probably because of their apterous nature and smooth body surfaces warranting in-depth scrutiny. Abundant floral visitors were registered during January–July compared to August–December. Higher nut yield in coconut recorded during January–May could be positively linked to enhanced foraging activities by insects, a classical instance of ecosystem services delivering economic benefits to farmers. The maximum insect activity was during the forenoon session, coinciding with anthesis time of coconut. Modulation among various diversity indices (Menhinick index, Shannon's index) were recorded for species richness and temporal abundance for insect visitation in coconut. Conservation of these pollinators in the perennial coconut system is crucial for sustaining production and safeguarding the ecosystem. As coconut produces inflorescence around the year and ensures continuous pollen availability, coconut orchards can also be used for division of honey bee colonies during the brood rearing season.

Keywords: Conservation, diversity indices, ecosystem service providers, nut yield, pollinators.