Melissopalynology studies on the Indian honey bee
(*Apis cerana indica* Fab.) in southern Kerala

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ABSTRACT: Melissopalynology studies of the Indian honey bee (*Apis cerana indica* Fab.) in southern Kerala was undertaken to study the potential pollen and nectar sources of Indian honey bee across the seasons in southern Kerala. A detailed characterization of all the honey and pollen samples showed the presence of 69 different pollen types; of which twenty four pollen types were identified up to species level. They were distributed among 19 families of these, the pollen types from the families of Arecaceae (3) and Asteraceae (3) were best represented in honey and pollen load samples. Honey bees were found to collect pollen from the tall trees (*Cocos nucifera*) as well as the small plants (*Mimosa pudica*) irrespective of their height.

INTRODUCTION

Beekeeping is an agro based enterprise where honey bees are utilized to harvest nectar and pollen from the plant sources to produce honey and other hive products. Though most plants in the ecosystem produce nectar and pollen, all of them do not form the honey source. Hence, recognition and initial screening of various bee plants representing potential sources of nectar and pollen for honey bees throughout the year is an important prerequisite for launching apiary industry in any locality (Kalpana and Ramanujam, 1997). Melissopalynology is one of the applied branch of palynology that deals with the microscopic analysis of the pollen contents of honey and pollen loads of a location. It provides reliable information regarding the different flora which will help the bee keepers to frame proper management practices.