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*Research Article*

# Studies on foraging behaviour of stingless bee, *Trigona iridipennis* Smith at Dharwad, Karnataka

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***Abstract :*** Foraging behavior of stingless bee, *Trigona iridipennis* Smith was studied at Dharwad during 2006-07 by recording outgoing bees and incoming bees with pollen load (Pollen foragers) and without pollen load in different seasons *viz.,* monsoon, winter and summer at Dharwad. The foraging behaviour varied significantly at different hours of the day and month of the season. Only one peak of activity of outgoing bees and incoming bees with and without pollen occurred between 1000 and 1200 hr during all the seasons. When the foraging activity irrespective of seasons was considered, the peak outgoing bees, pollen foragers and incoming bees without pollen occurred at 1200 hr (31.40, 10.52 and 17.18 bees/5 min, respectively). The activity of outgoing bees was higher in October and November, while that of pollen foragers was noticed in February. Similarly in October, November and February to May higher activity of incoming bees without pollen was recorded.

***Key Words :*** Foraging behaviour, Stingless bee, *Trigona iridipennis*

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## INTRODUCTION

Stingless bees are the smallest of the honey producing bees and belong to the family Apidae and subfamily Meliponinae. They are highly social insects like honey bees living in permanent colonies, nesting in old walls, logs, crevices and such other concealed places.

There are more than 500 species of stingless bees worldwide belonging to 18 genera (Wille and Michener, 1973). *Trigona* is the largest and most widely distributed genus, which includes 130 species under ten sub-genera. *Melipona* consists of 50 species and is confined to the neotropics. However, in India *T. iridipennis* is the only species recorded so far (Biesmeijer, *et al.,* 1994; Mohan and Devanesan, 1999; Muthuraman, 2006). As the stingless bees are important pollinators of several crops besides yielding honey (Heard, 1999) a thorough knowledge of the foraging behaviour is essential in order to maintain the colonies both for honey production and crop pollination. Hence, the present studies on foraging behaviour of *T. iridipennis* were made and the results are presented in this paper.

## EXPERIMENTAL METHODS

These studies were made at the main campus of the

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