FORAGING BEHAVIOR OF ITALIAN HONEY BEE, APIS MELLIFERA (HYMENOPTERA-APIDAE) IN BROCCOLI FLOWERS

G.P. Painkra*

All India Coordinated Research Project on Honey Bees and Pollinators IGKV, Department of Entomology, Raj Mohini Devi College of Agriculture and Research Station, Ambikapur-497001 Surguja (Chhattisgarh) India

Received-30.10.2019, Revised-18.11.2019

Abstract: The observation was undertaken at Raj Mohini Devi College of Agriculture and Research Station, Ambikapur of Indira Gandhi Krishi Vishwavidyalaya Raipur (Chhattisgarh) for foraging behavior of Italian honey bee in broccoli flowers during 2018-19. The foraging activity of Italian bee was observed maximum at 10.00AM (43.30 bee/5min/m²) followed by at 12.00Noon (21.57 bee/5min/m²) and at 08.00AM(13.42bee/5min/m²) however the minimum activity was recorded at 2.00 PM (12.55 bee/5min/m²).

Keywords: Broccoli flower, Foraging behavior, Italian bee, Apis mellifera

REFERENCES

Dalio, J.S. (2013). Foraging activity of Apis mellifera on *Parthenium hystophorus*. Journal of Pharmacy and Biological Sciences 7(5):01-04.

Dalio, J.S. (2015). Foraging behaviour of *Apis mellifera* on *Trianthema portulacastrum*. Journal of Entomology and Zoology Studies; 3 (2): 105-108.

Said, Fazal, Inayatullah, Mian, Ahmad, Sajjad, Iqbal, Toheed, Ali Shah, Ruidar, Usman, Amjad, Zaman, Maid and Ul Haq, Saeed (2015). Foraging behavior of the Himalayan honey bee, *Apis cerana* (Hymenoptera-Apidae) associated with sunflower, *Helianthus annus* L. at Peshwar district Khyber Pakhtunkhwa (KP) Journal of Entomology and Zoology Studies 3(3): 203-207.

Kumar, M. and Singh, R. (2016). Initiation-Cessation and Period of Foraging Activity of Honeybees on Coriander (*Coriandrum sativum* L.) flowers. Advances in Life Sciences. 5(23):11119-11121.

Manhare, J.S., Painkra, G.P., Painkra, K.L. and Bhagat, P.K. (2017). Studies on the forging activity of Indian honey bee, *Apis cerana indica* Fabr. and other honey bee spp. on buckwheat flowers. Journal of Plant Development Sciences. 9(8):823-828.

Painkra, G.P. and Shaw, S.S. (2016). Foraging behaviour of honey bees in niger flowers, *Guizotia abyssinica* Cass. in North Zone of Chhattisgarh. International Journal of Plant Protection. 9(1):100-106.

Painkra, G.P., Shrivastava, Shiv, K., Shaw, S.S. and Gupta, Rajeev (2014). Foraging behaviour of honey bees on niger flower (*Guizotia abyssinica* Cass.). An International Research Journal Lab to Land. 6(24):382-386.

Painkra, G.P., Shrivastava, Shiv, K., Shaw, S.S. and Gupta, Rajeev (2014). Foraging behaviour of honey bees on niger crop (*Guizotia abyssinica* Cass.). An International Research Journal Lab to Land. 6(23):289-293.

Painkra, G.P. (2018). Foraging behaviour of giant bees, *Apis dorsata* (Hymenoptera – Apidae) on *Ageratum conyzoides* in Northern hill Zone of Chhattisgarh. Journal of Plant Development Sciences. 10(9):517-520.

Painkra, G.P. (2016). Foraging behaviour of rock bees, *Apis dorsata* on lajwanti grass (*Mimosa pudica*) in Surguja of Chhattisgarh. Journal of Plant Development Sciences.; 8(11):543-545.

Painkra, G.P. (2019). Foraging behaviour of honey bees on coriander (*Coriandrum sativum* L.) flowers in Ambikapur of Chhattisgarh, Journal of Entomology and Zoology Studies, 7(1): 548-550.

Painkra, G.P., Bhagat, P.K. and Meshram, Y.K. (2014). Comparative foraging activity of honey bees visiting on buckwheat crop (*Fagopyrum esculantum*).Interface on Management of Ecofriendly Important Insects in India at Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur (M.P) India,

Painkra, G.P. and Kumaranag, K.M. (2019). Foraging activity of stingless bee, T*etragonula iridipennis* smith (Hymenoptera-Apidae-Meliponinae) in sunflower. Journal of Plant Development Sciences, 11(8) : 463-466.

Painkra, G.P. (2019). Foraging behaviour of stingless bee, *Tetragonula iridipennis* (Hymenoptera –Apidae) in broccoli flowers in Ambikapur of Chhattisgarh.Journal of Plant Development Sciences, 11(7): 431-433.

*Corresponding Author

Journal of Plant Development Sciences Vol. 11(11): 681-683. 2019