



Behavioural studies on Shoot and Fruit Borer, *Conogethes punctiferalis*, Guenée, (Crambidae: Lepidoptera) host-associated populations reveal occurrence of cryptic species

Shashank R. Pathour^{1*}, Akshay Kumar Chakravarthy¹,
R. Chandrashekharaiyah¹ & K.R.M. Bhanu²

¹Department of Agricultural Entomology, University of Agricultural Sciences, GKVK, Bangalore – 560065, India.

²Bio-Control Research Laboratories, A Division of Pest Control (India) Pvt. Ltd., 36/2, Sriramanahalli. Nr. Rajankunte, Doddballapur road, Bangalore – 561 203, India.

With 7 figures and 1 table

Abstract: *Conogethes punctiferalis*, Guenée, reared on castor (*Ricinus*) and cardamom (*Elettaria*) was observed for moth emergence pattern, calling and mating behaviour and effect of interbreeding on offsprings. Females *C. punctiferalis* reared on castor emerged four hour (17.78 %) after lights off (ALO), those reared on cardamom emerged an hour (23.46 %) ALO. The calling frequency was more pronounced in female *C. punctiferalis* reared on castor compared to that on cardamom. *C. punctiferalis* moths reared on cardamom showed peak mating between 4 to 6 hours ALO, while 6 to 9 hours in females reared on castor. Failure of hybridization between *C. punctiferalis* reared on castor and cardamom suggest that the two *C. punctiferalis* populations segregated into two species. *C. punctiferalis* is a complex of species and observations, experiments, history and ecology support separation of *C. punctiferalis* on castor and cardamom into two.

Keywords: *Conogethes punctiferalis*, Guenée, 1854 – Castor – Cardamom – calling frequency – hybridization – cryptic species

*Corresponding author: spathour@gmail.com