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<b>Title of papers /proceeding published in national/ international conference</b>	<b>Name of Teacher</b>
<b>Biology and Parasitic Efficiency of Trichogrammatoidea Bactrae Nagaraja on Eggs of Different Bollworms on Different Host Eggs</b>	<b>M. S. Kuyate and V. K. Bhamare</b>

# *Sixth National Conference on Biological Control: Innovative Approaches for Green India*

**3 - 5 March 2021**

**ICAR-NBAIR, Bengaluru**



*Society for Biocontrol Advancement &  
ICAR-National Bureau of Agricultural Insect Resources*

P.B. No. 2491, H.A. Farm Post, Hebbal, Bellary Road,

**Bengaluru-560024**



# Sixth National Conference on Biological Control: Innovative Approaches for Green India

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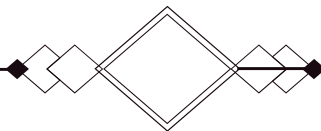
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## **Biology and parasitic efficiency of *Trichogrammatoidea bactrae* Nagaraja on different host eggs**

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Investigations on the biology and parasitic efficiency of *Trichogrammatoidea bactrae* Nagaraja on the eggs of *Corcyra cephalonica* (Stainton), *Helicoverpa armigera* (Hubner), *Pectinophora gossypiella* (Saunders) and *Spodoptera frugiperda* (J.E. Smith) revealed that host influences the growth and survival of the developing parasitoid. The overall results on biology of *Tr. bactrae* revealed that per cent parasitisation (89, 66, 69 and 67 per cent respectively) was noticed on the fifth day after exposure of various host eggs. Egg-larval period was ( $4.02 \pm 0.23$ ,  $4.60 \pm 0.24$ ,  $4.98 \pm 0.11$  and  $4.46 \pm 0.11$  days respectively), prepupal-pupal period was ( $2.98 \pm 0.13$ ,  $3.20 \pm 0.16$ ,  $3.82 \pm 0.08$  and  $3.34 \pm 0.08$  days respectively), total developmental period was ( $7.00 \pm 0.14$ ,  $7.80 \pm 0.17$ ,  $8.80 \pm 0.07$  and  $7.80 \pm 0.16$  days respectively), per cent adult emergence was (91.01, 77.27, 79.71 and 73.13 per cent respectively), sex ratio was female biased on all host eggs (1:1.61, 1:1.83, 1:1.5 and 1:1.88 respectively), adult longevity of male was ( $1.40 \pm 0.07$ ,  $1.20 \pm 0.07$ ,  $1.80 \pm 0.07$  and  $1.14 \pm 0.04$  days respectively), adult longevity of female was ( $5.80 \pm 0.35$ ,  $5.40 \pm 0.12$ ,  $6.60 \pm 0.10$  and  $4.80 \pm 0.16$  days respectively), total life-cycle duration of male was ( $8.40 \pm 0.19$ ,  $9.00 \pm 0.23$ ,  $10.60 \pm 0.07$  and  $8.94 \pm 0.16$  days respectively) and total life-cycle duration of female was ( $12.80 \pm 0.42$ ,  $13.20 \pm 0.19$ ,  $15.40 \pm 0.12$  and  $12.60 \pm 0.23$  days respectively). The results of parasitic efficiency of *Tr. bactrae* on four different host eggs evidenced significant difference in rate of parasitism. Maximum average parasitism was registered on the eggs of *C. cephalonica* ( $78.50 \pm 4.95$  per cent) followed by *P. gossypiella* ( $63.50 \pm 9.19$  per cent), *H. armigera* ( $61.50 \pm 9.19$  per cent) and *S. frugiperda* ( $56.50 \pm 6.36$  per cent).



# SIXTH NATIONAL CONFERENCE ON BIOLOGICAL CONTROL : INNOVATIVE APPROACHES FOR GREEN INDIA

## NCBC 2021

### CERTIFICATE OF PRESENTATION

In this to certify that Dr./Mr./Ms.

*M. S. Kuyate and V. K. Bhamare*

participated and presented a poster paper entitled

**Biology and parasitic efficiency of *Trichogrammatoidea bactrae***

**Nagaraja on different host eggs**

at Sixth National Conference on Biological Control:

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