

## The influence of temperature on the development of *Exochomus nigromaculatus* (Coleoptera: Coccinellidae)

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The effect of temperature on the different developmental stages of *Exochomus nigromaculatus* Goeze was quantified by deriving a regression equation. Experiments were conducted at 15, 20, 25, 30, 35 and 40 °C and 65 ± 5% R.D. and 14L:10D photoperiod. Development from egg to adult ranged from 97.75 ± 1.27 days at 15 °C to 12.05 days at 40 °C. Higher and lower hatching rate registered in 30 °C and 40 °C respectively. Lower threshold temperatures were computed for all developmental stages of *Exochomus nigromaculatus* by a linear regression method. Accumulated temperature for development from egg to adult were 318.07 ± 21.59 degree days above a developmental threshold of 13.00 °C. The developmental threshold ranged from 10.87 °C for 4<sup>th</sup> instars larvae to 14.30 °C for 2<sup>nd</sup> instars larvae with heat unit requirements 60.53 and 25.89 degree days, respectively. The developmental threshold for egg and pupa were 12.44 and 11.44 °C respectively.

**Key words:** Temperature, Development, *Exochomus nigromaculatus*