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Recent Advances in Taxonomy and Bioecology of  
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## Molecular Characterisation of Red Flour Beetle, *Tribolium Castaneum* (Herbst) from Various Warehouses in Southern India.

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### Abstract

Stored food products are subjected to attacked by a wide range of pests .One such pest is the red flour beetle, *Tribolium castaneum*. It is a cosmopolitan pest attacking several food stuffs such as grains, pulses, dried fruits and nuts. Owing to its small size, the exact taxonomic identification seems tedious. Hence, molecular markers serve this purpose. The molecular marker used in the present study is the mitochondrial cytochrome Oxidase I gene. In this study, insect samples were collected from various warehouses in Southern India. Further their DNA extraction followed by the amplification of mtCOI gene was performed. The amplified sequences were then subjected to bidirectional sequencing. The obtained sequences were then analysed for phylogeny using Bioinformatic Tools. The collected samples were identified as *Tribolium castaneum* using BLAST tools. The results also reveal close sequence similarity between the collected insect samples.

**Keywords:** Molecular identification, Phylogeny, mtCOI, Pest, *Tribolium castaneum*