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## **Preliminary studies on natural enemies of the safflower capsule fly, *Acanthiophilus helianthi* Rossi, 1794 (Diptera: Tephritidae)**

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Safflower, *Carthamus tinctorius* L. is an important oilseed crop and an essential component of cropping systems in the dry regions and marginal areas of the world. Like other crops, safflower suffers from various diseases and pests, and safflower capsule fly, *Acanthiophilus helianthi* Rossi, 1794 (Diptera: Tephritidae) is one of them.

Investigations were made from March 2008 to August 2009 in Gachsaran and Yasooj (Iran) to record the natural enemies' status safflower capsule fly. A total of eleven arthropod species were recorded as natural enemies' safflower capsule fly. Out of 25 farms surveyed, and all of them had the incidence of natural enemies' safflower capsule fly.

After the formation of the flower head, the intended fields were visited and ten samples, each of which had 30 flower heads, were randomly collected. In the laboratory, the samples were inspected under the microscope and flower heads of safflower from the middle part opened and then pupae were taken out. Then every one hundred pupae were placed into special containers. In the next step, after the departure parasitoids was attempting to identify them.

Among the natural enemies safflower capsule fly were found to cause considerable damage to the safflower capsule fly, while others not at effective. Among the natural enemies, parasitoids like *Bracon hebetor*, *Bracon luteator*, *Colotrechnus viridis*, *Antistrophoplex conthurnatus*, *Microdontomenus annulatus*, *Ormyrus orientalis*, *Eurytoma acroptilae*, *Pronotalia carlinarum*, *Pteromalus* sp. and *Isocolus tinctorius* were found to be associated with the pests of safflower.

**Key words:** safflower pests, arthropod enemies, Iran

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