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Occurrence of *Cotesia* sp. (Hymenoptera: Braconidae): A larval parasitoid of *Spodoptera litura* (Fabricius) (Lepidoptera: Noctuidae) in castor

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Castor (*Ricinus communis* L.) locally known as 'Arandi' is a non-edible oilseed crop which belongs to the family of Euphorbiaceae. More than 107 species of insects and mite pests have been listed on castor at different stages of crop growth (Lakshminarayana and Raof, 2005). One of the most significant insect pests infesting castor in Asia is the castor leaf eating caterpillar, *Spodoptera litura*, which is widespread throughout tropical and temperate Asia, Australia and the Pacific Islands (Kranz et al., 1977). Parasitoids are important biocontrol agents that are used in bio-intensive pest management programmes. In recent days, these bioagents have gained great attention because of their incredible ability to suppress the pest populations. The utilization of biocontrol agents assures the reduced use of synthetic chemical pesticides and hence helps in minimizing the environmental pollution and hazards (Bhadane et al., 2016).

During *rabi* season of the year 2021-22, general surveys were carried out under All India Co-ordinated Research Project (AICRP) on Biological Control of Crop Pests, Anand Agricultural University (AAU), Anand (Gujarat) for documenting biocontrol agents. The castor fields of Agronomy farm at AAU, Anand was found infested with *S. litura* and few larvae were found less active with reduced feeding. The larvae suspected of parasitization were collected. The collected larvae were kept in the laboratory and observed for emergence of parasitoid. After 2-3 days, small off-white larvae were found emerging from *S. litura* larvae. The parasitoid was identified as *Cotesia* sp. Larvae of *Cotesia* sp. were soft skinned and soon after emergence from the host started spinning a tight white silky cocoon. Adults of *Cotesia* sp. were small with short ovipositor that aid in parasitizing neonate larvae.



Fig 1. Larvae of *S. litura* parasitized by *Cotesia* sp.



Fig 2. Black marks indicating the exit hole of parasitoid *Cotesia* sp. in *S. litura*



Fig 3. Cocoon of *Cotesia* sp.



Fig 4. Adult of *Cotesia* sp.

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