



## Parasitoids of HesperIIDae from peninsular India with description of a new species of *Dolichogenidea* (Hymenoptera: Braconidae) parasitic on caterpillar of *Borbo cinnara* (Wallace) (Lepidoptera: HesperIIDae)

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### Abstract

Five species of parasitic wasps associated with hesperiids from peninsular India are documented along with the description of a new species of gregarious endoparasitoid, *Dolichogenidea cinnarae* sp. nov. (Hymenoptera: Braconidae) parasitic on caterpillar of *Borbo cinnara* (Wallace) (Lepidoptera: HesperIIDae). Also, the gregarious larval parasitoid, *Cotesia erionotae* (Wilkinson) (Braconidae) and solitary pupal parasitoid *Charops plautus* Gupta & Maheshwary (Ichneumonidae) were bred from the host *Udaspes folus* (Cramer) on the host plant *Hedychium coronarium* J. Koenig. *Udaspes folus* is the new host record for the parasitic wasp genus *Charops*. *Cotesia erionotae* was bred from *U. folus* caterpillars from three states: Maharashtra, Karnataka and Kerala. An encyrtid wasp *Ooencyrtus papilionis* Ashmead was bred from eggs of *Bibasis jaina* (Moore) on the host plant *Hiptage benghalensis* (L.). This is the first documentation of a parasitic wasp from the genus *Bibasis*. *Leptobatopsis indica* (Cameron) (Ichneumonidae), often associated with *Parnara guttatus* (Bremer & Grey), was recorded from the Andaman islands.

**Key words:** New species, larval parasitoid, skippers, taxonomy

Natural parasitism is a core phenomenon in any food chain. It generates interesting information on host-parasitoid association which is often exploited in biocontrol programs. Parasitic wasps have found to be instrumental in reducing the populations of many economic pests below the economic injury level thus reducing the pesticide load on the environment. In continuation with studies on documentation of parasitic wasps associated with hesperiid butterflies (skippers) from Western Ghats, Kerala by Gupta & Kalesh (2012), recent surveys were undertaken in Maharashtra, Karnataka, Tamil Nadu, and the Andaman & Nicobar islands, during which many infected hesperiid caterpillars and their associated parasitic wasps were collected.

In the present research findings, the host *Borbo cinnara* (Wallace) was parasitised by a new species of braconid wasp, *Dolichogenidea cinnarae* sp. nov. which was found to be the dominant primary parasitoid. An ichneumonid wasp, *Charops plautus* Gupta & Maheshwary, was recorded for the first time from the pupa of *Udaspes folus* (Cramer) on the host plant *Hedychium coronarium* J. Koenig along with a gregarious species of braconid wasp *Cotesia erionotae* (Wilkinson). An encyrtid wasp *Ooencyrtus papilionis* Ashmead was bred from eggs of *Bibasis jaina* (Moore) on the host plant *Hiptage benghalensis* (L.). This is the first documentation of a parasitic wasp from the genus *Bibasis*. Also *Leptobatopsis indica* (Cameron), an ichneumonid wasp, often associated with *Parnara guttatus* (Bremer & Grey), was collected from Andaman islands.

### Materials and methods

Manual hunting of caterpillars in the field in Maharashtra, Karnataka, Tamil Nadu, and the Andaman & Nicobar islands followed by subsequent rearing of individual caterpillar in plastic containers covered with muslin cloth was