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# Occurrence of Larval Parasitoid, *Apanteles Rudius* on Teak Defoliator, *Hyblaea Puera*

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**ABSTRACT**

The present article deals with *Apanteles rudius* Wilkinson (Hymenoptera : Braconidae) emerged from laboratory reared larvae of teak defoliator, *Hyblaea puera* Cramer (Lepidoptera : Hyblaeidae) collected from teak (*Tectona grandis* L.f.) forests of Odisha. The diagnostic features of this parasitoid are mentioned.

**Keywords** : *Apanteles rudius*, larval parasitoid, teak defoliator, *Hyblaea puer*

## INTRODUCTION

Teak (*Tectona grandis* L.f.) (family Verbenaceae), is consider as a paragon among the high quality tropical timbers (Tewari, 1992; Bhat et al., 2005). The species is subject to serious depredation by insect pest, *Hyblaea puera* Cramer (Lepidoptera : Hyblaeidae). *H. puera* is commonly known as teak defoliator and well known devastating insect pest of teak in nurseries, plantations and natural forests. Larvae of *H. puera* suffer from the attack of larval parasitoid, *Apanteles* species in nature (Roychoudhury, 2010, 2013, 2016; Roychoudhury et al., 2022).

Regarding *Apanteles* species, Beeson (1941) recorded 25 species of *Apanteles* from India as parasitising various insect pests. *A. puera* and *A. malevolus* on *H. puera* and *A. machaeralis* and *A. ruidus* on *Eutectona machaeralis* have been recorded from teak forests (Beeson, 1941). Chatterjee and Misra (1974) enlisted 49 species of *Apanteles* from India, out of which four species of *Apanteles*, viz. *A. malevolus* and *A. puera* are reported to parasitise the larvae of *H. puera*, and *A. machaeralis* and *A. ruidus* parasitise the larvae of *E. machaeralis*. Till date 85 species of *Apanteles* infesting various insect pests have been recorded from India. Nair et al. (1995) have recorded *A. hyblaeae*, *A. machaeralis*, *A. malevolus* and *A. puera*, as parasitoids of teak defoliator, *H. puera*. Recently,

Roychoudhury (2013) has also recorded 30 species of *Apanteles* on major defoliators of teak in Odisha. The present article deals with *Apanteles rudius* Wilkinson (Hymenoptera : Braconidae) emerged from laboratory reared larvae of defoliator, *H. puera* collected from teak forests of Odisha. The diagnostic features of *A. rudius* are mentioned.

***Apanteles* species**

A checklist of world species of Microgastrinae parasitoid wasps (Hymenoptera : Braconidae) reveals a total of 81 genera including *Apanteles* and 2,999 extant species are recognized as valid, including 36 nominal species that are currently considered as *species inquirendae* (Fernandez-Triana et al., 2020). *Apanteles* is a very large genus of braconid wasps, containing more than 600 described species found worldwide (https://en.wikipedia.org/ wiki/Apanteles).

The parasitic wasps, *Apanteles* species are important larval parasitoids of several lepidopterous pests of agricultural crops, commercial cash crops and forest tree species. Adult wasps are free-living and females insert their eggs beneath the skin of the host larvae, where eggs hatch and their young ones feed. Finally, mature larvae leave the hosts and spin cocoons before larval-pupal transformation. After pupal-adult transformation wasps emerge from the cocoons. *Apanteles* Foerster belongs to the order Hymenoptera, family Braconidae and sub-family Microgastrinae. It is the most conspicuous single group of endo-parasitoids of Lepidoptera in the world, both in terms of species richness and economic importance. In India, considerable work has been carried out on identification of *Apanteles* species only (Wilkinson, 1928a,b). Several *Apanteles* species have been recovered from a large number of native Lepidoptera and are potential biocontrol agents to check the population of important insect pests (Chatterjee and Misra, 1974).

***Apanteles rudius* Wilkinson**
*Apanteles rudius* Wilkinson, 1928a: 94
(Fig. 1)

**Diagnostic characters :** Fore-wings with extreme margins of stigma and metacarp are reddish yellow; first abscissa of radial is equal to the breadth of stigma, possibly a little and longer than recurrent vein which latter is obviously longer than transverse cubital; stigma shorter to metacarp, longer tibial spur about and shorter spur sub equal of the half the length of basal joint of hind tarsus. First tergite and 2nd tergite rugose, the 3rd tergite least basally and commonly completely rugulose, each succeeding tergite with a trasverse row of minute punctures; ovipositor sheaths about equal to or rather longer than hind tibial spur.

Fig.1. *Apanteles rudius*

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