FIRST REPORT OF *ENICOSPILUS SHINKANUS* UCHIDA, 1928 FROM ANDAMAN AND NICOBAR ISLANDS, INDIA

*Manish Chandra Patel & Chandrakasan Sivaperuman*

Zoological Survey of India, Andaman Nicobar Regional Centre, Port Blair -744102, Andaman & Nicobar Islands

*Corresponding author email: manishchpatel@gmail.com*

**ABSTRACT**

The Family Ichneumonidae of the order Hymenoptera is a parasitoid wasp family. They are important parasitoids of other invertebrates mainly larvae and pupae of Coleoptera, Hymenoptera, and Lepidoptera. *Enicospilus shinkanus* Uchida, 1928 is reported for the first time from Andaman Islands based on collected sample and observation from South Andaman.

**KEYWORDS:** Ichneumonidae, Ophioninae, Hymenoptera, Enicospilus, Andaman Islands.

**INTRODUCTION**

The Andaman and Nicobar Islands are known for rich biodiversity resources (Mathur and Padalia, 2010). The archipelago comprises 572 islands and extending over 800 km. The topography of the Andaman and Nicobar Islands are hilly and undulating; the elevation in Andamans is from 0 to 732 m and Saddle Peak is the highest in North Andaman Island. In the Nicobars the elevation rises from 0 to 568 m, Mt Thullier being the highest peak on Great Nicobar Island. The habitats represented in the islands include bays, mangroves, moist deciduous forests and evergreen forests. These islands are tropical, that is, warm, moist and equable. The proximity of the sea and the abundant rainfall prevent extremes of heat. The mountainous parts of the southern group of islands get about 300 cm of rain annually whereas the islands of north get lesser rainfall. Flora and fauna in Andaman bear close biogeographical affinities with Myanmar and Thailand while Nicobar has affinities with Indo-Mayan regions (Ekman, 1953). The members of family ichneumonidae are solitary koinobiont endoparasitoids of the larvae of other holometabolous insects. Virtually most of them rear from Lepidoptera. The ichneumonids includes the large to medium sized orange-brown species that are commonly found at night flying around lights. All are nocturnal and active during night; the ichneumonids are pale, slender with long antennae and legs. The members of Subfamily Ophioninae can be found at night because they come to light, they are easily observed in quite large numbers. Though there are 33 genera were reported worldwide, the majority of species reported in the New World belongs two genera. The *Ophion* generally predominates in temperate areas and on tropical mountain tops. The *Enicospilus* are primarily tropical genus.

**MATERIAL & METHODS**

During the regular field surveys as a part major ecological studies on terrestrial fauna of Andaman & Nicobar Islands, we have recorded *Enicospilus shinkanus* Uchida, 1928 (Hymenoptera: Ichneumonidae: Ophioninae) a parasitic ichneumen wasp from Port Blair Airport campus. Only few studies have been carried out on the taxonomy of ichneumonidae in India. Moorley (1912 and 1913) carried out studies on taxonomy of ichneumonidae. Townes and Gupta (1961) reported *Enicospilus* from Indo-Australian region. Rao (1970) contributed a revised key of this genus. Nikam (1972, 1975 and 1980) described 49 species of *Enicospilus* from India.

**Material Examined**

1 ex, *, collected from Port Blair Airport Campus, South Andaman (Latitude. 11° 37.371' N; Longitude. 92° 43.130 'E) on 31st January 2014 at Night by C. Sivaperuman & Party the specimen was collected and dry preservation was made and deposited (Reg. No. T-3307) in National Zoological Collection of Zoological Survey of India, Port Blair, Andaman & Nicobar Islands.

**Morphometric Analyses**

Morphometric Analyses of the specimen was done firstly with hand lens and measurement of forewing indices was done on Leica M 205 Stereozoom Microscope. The specimen is medium sized orange-brown insect with slender body. Eyes and ocelli are large and black in colour. Flagellum is very long and slender with 40-50 segments. Intercellular area of lower face is brown. Discosubmarginal cell has a large fenestra with a proximal sclerite having very fine appendix Distal Sclerite absent. Size of insect is 25 mm. The length of forewing is 12.10 mm and hind wing 9.0 mm. Forewing’s indices: AI - 0.60, CI - 0.24, SDI - 1.19 and ICI - 0.58; Hind wing’s index: NI - 2.3 Legs are slender and claws are strong. Gaster elongate, dark brown terminally darker to blackish (Note: AI - Alar index; CI - Cubital index; SDI - Second Discoidal Index; ICI-Intercubital index; NI - Nervellar index.
RESULTS
According to the available literature, this species is identified as *Enicospilus shinkanus* Uchida, 1928 using keys given by Nikam, P. K. (1980) and this has not been reported earlier from Andaman and Nicobar Islands, hence this is the first report of a Ichneumonidae from this archipelago.

**Systematics**
Class: Insecta
Order: Hymenoptera
Suborder: Apocrita (Parasitica)
Family: Ichneumonidae
Subfamily: Ophioninae
Genus: Enicospilus
Species: *Enicospilus shinkanus* Uchida, 1928

*Enicospilus shinkanus* Uchida, 1928 (Fig 1 a-c)
*Uchida T. 1928 ZweiterBeitrag zur Ichneumoniden- Fauna Japans. Journal of Faculty of Agriculture, Hokkaido University, 21: 177-297

Synonyms:
*Enicospilus bindus* Nikam, 1972
*Enicospilus relicus* Chiu, 1954
*Enicospilus pankumensis* Cheesman, 1936

**Distribution:** Mostly reported from Tropical and Subtropical Countries with high annual rainfall.

**India:** Assam, Bihar, Jharkhand, Delhi, Uttar Pradesh, Uttarakhand.

**Elsewhere:** China, Fiji, Japan, Taiwan, Korea, Malaysia, Palau, New Guinea, Philippines, Solomon Islands, Vanuatu, Vietnam and Western Samoa.

ACKNOWLEDGEMENTS
We are grateful to the Officer-in-Charge, Andaman and Nicobar Regional Centre, Zoological Survey of India, Port Blair and the Commander, Stations Flight Safety Officer (SFSO), INS Utkrosh, C/o. Navy, Port Blair for their support and encouragement during the field survey.

REFERENCES


Moorley, C. (1914): Zoological results of the Arbour Expedition, 1911-12 xxiii Ichneumonidae: Hymenoptera, IV. Record of Indian Museum 8: 323-328


