



## The record of the Jewel beetle, *Strigoptera bimaculata* (L., 1758) (Coleoptera, Buprestidae) from India

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**ABSTRACT:** *Strigoptera bimaculata* (L., 1758) is a tropical Buprestid (jewel beetles) found throughout Southeast Asia to Northern Australia. Adult *S. bimaculata* was observed in The American College in Madurai, Tamil Nadu, India. The present record extends its known distribution range further towards the west being the western most occurrence of this species in the world.

**KEYWORDS:** Jewel beetle, occurrence, distribution range

The order Coleoptera is represented by 3,44,105 species worldwide among them 17,036 species are found in India (Kriti and Sidhu, 2015). The family Buprestidae includes 775 genera with 15,500 species of beetles, making this a largest group of beetles known (Bellamy, 1985; Holynski, 1993; Bily, 2002). The family represents all the jewel beetle species with metallic glossy iridescent colours. The jewel beetle, *Strigoptera bimaculata* (L., 1758) (Coleoptera: Buprestidae) is a tropical and distinctive metallic blue buprestid found throughout Southern East Asia to Northern Australia. Though it is widely distributed very little is known about its global distribution and biology. All the known previous records made the species confined to a cluster of few countries in proximity.

An adult *S. bimaculata* was observed in the campus of The American College in Madurai, Tamil Nadu, India (Fig. 1). It was observed for an hour

rather no feeding behaviour or any other specialized behaviour was noted. Photographic documentation was done using (Samsung M51) and identified up to species level on the basis of illustration and descriptions from the literature (Ek-Amnuay, 2008; Hawkeswood, *et al.*, 2018; Hawkeswood, 2021). The Map illustrating the global distribution of *Strigoptera bimaculata* was constructed using Quantum Geographical Information System (QGIS Desktop 3.16.15).

Global Distribution of *Strigoptera bimaculata* with past and present records were represented (Table 1, Fig. 2).

This seems to be the first published record of *S. bimaculata* in India. According to the past observations and records *S. bimaculata* has been reported from Thailand, Vietnam, Cambodia, Myanmar, Indonesia and Australia. Hawkeswood

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Fig. 1 *Strigoptera bimaculata* (Linnaeus., 1758) (Coleoptera: Buprestidae) found from, Madurai, Tamil Nadu, India

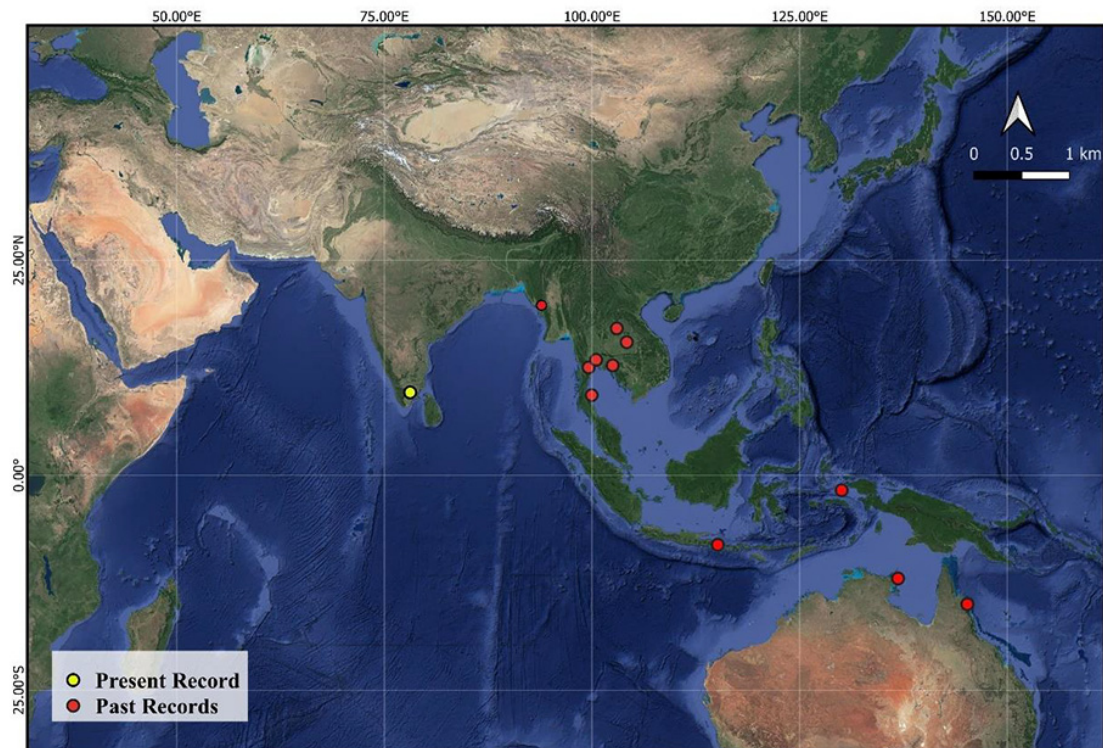


Fig. 2 Map illustrating the global distribution of *Strigoptera bimaculata* with previous records (red dots) and the present record in India (yellow dots)

Table 1. List of past and present record of adult *Strigoptera bimaculata* in the world

No.	Country	Catal.no.	Year of Publication	Authors	Reference
1	Indo-Australia	BE.2277284	2017	Creuwels. J	Naturalis Biodiversity Center
2	Vietnam	BA03134	2020	Sawada. Y & Kurubi. K	Osaka Prefectural Minoh Park Insects Museum. National Museum of Nature and Science, Japan.
3	Australia	K.91150	2021	Chaseling. L	Australian Museum
4	Australia	BUP207	2021	-	Museums Victoria
5	Australia	COL78838	2021	-	Museums Victoria
6	Thailand	8912826	2022	Elliot Greiner & Stephen Gottwald	iNaturalist
7	Thailand	21068258	2022	Les Day	iNaturalist
8	Indonesia	107697247	2022	Mehd Halaouate & Stephen Gottwald	iNaturalist
9	Thailand	48765883	2022	Didier Levasseur & Stephen Gottwald	iNaturalist
10	Thailand	79742338	2022	Ian_dugdale	iNaturalist
11	Thailand	90627712	2022	Tanapong	iNaturalist
12	Indonesia	97736793	2022	Stephen Gottwald	iNaturalist
13	Cambodia	117433972	2022	Mark Spicer	iNaturalist
14	India	126925904	2022	Kishore R	iNaturalist
15	Myanmar	121596203	2022	Frankthierfelder	iNaturalist
16	China	156953	2022	Fagerstrom. C	Lund University Biological Museum Insect Collections Inventory.
17	Indonesia	193201	2022		Sys Tax -Zoological Collections
18	Australia	196056	2022		Sys Tax -Zoological Collections
19	Philippines	197650	2022		Sys Tax -Zoological Collections

(pers. comment) stated the past record of this species from India is unknown due to lack of proper references. When re-examined these references provided in Ek-Amnuay (2008) about its distribution in India, there was no evidence of its occurrence. It may probably present in India and Malaysia although conclusive evidence is required.

Though *S. bimaculata* has been recorded from seven countries, most of its sightings were from mangroves and its adjacent mainland. Hawkeswood (1986, 1988) recorded the beetle breeding in mangroves *Ceriops tagal* (Pers.) C.B. Rob. (Rhizophoraceae) and *Camptostemon schultzei*

Mast. (Malvaceae) in Australia. The present record of this species in Madurai is approximately 200 km far from the Gulf of Mannar National Park. The National Park has mangroves with rich tree diversity and it is one of the remnant patches of Indian Mangrove *Ceriops tagal* (host plant of *S. bimaculata*) along the Indian coast (Selvam *et al.*, 2004). *S. bimaculata* appears to breed in the trunks (or major branches) of mature trees of *Hevea brasiliensis* Muell. Arg. (Euphorbiaceae) rubber trees (Hawkeswood, 2021). The past records also depict similar pattern of its occurrence in mainland far from its host plant in the mangroves.

The present record extends its known distribution range further towards the west being the western most occurrence of this species in the world. Furthermore, studies should be carried out to reveal its biology, distribution and host interactions over a period of time.

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