

ISSN 0972- 1800



# BIONOTES

VOLUME 23, NO. 4

QUARTERLY

OCTOBER—DECEMBER, 2021



Date of Publication: 24<sup>th</sup> April, 2022

# BIONOTES

A Quarterly Newsletter for Research Notes and News  
On Any Aspect Related with Life Forms

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### From Volume 21

Published by the Entomological Society of India (ESI), New Delhi (Nodal Officer: V.V.  
Ramamurthy, ESI, New Delhi)

And

Butterfly Research Centre, Bhimtal  
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Cover Photo of *Athyma nefte* by Rajib Dey

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## **RUMEX MARITIMUS L. (POLYGONACEAE): A NEW LARVAL HOST PLANT FOR *EUREMA HECABE* (INSECTA: LEPIDOPTERA: PIERIDAE)**

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Reviewer: Piet van der Poel

### Abstract

*Rumex maritimus* L. is reported as a new larval host plant for *Eurema hecabe*.

**Keywords:** *Rumex maritimus*, *Eurema hecabe*, larval host plant, Tripura, India.

### Introduction

*Eurema hecabe* (Linnaeus, 1758), a polyphagous pierid (<https://butterflycircle.blogspot.com>), is widely distributed in Thailand, Japan, China, Indo-China, India, Indonesia and New Guinea to Australia (Yata, 1995). Many authors expressed the importance of the knowledge of the early stages of insects and food plants (Bortamuly & Dey, 2021), but no comprehensive study was conducted in Tripura state till now (Deb & Mandal, 2021).

### Materials and Methods

On 02.v.2021, AK observed an *Eurema hecabe* butterfly laying eggs singly on both sides of the leaves, fruits and seeds of *Rumex maritimus* at Gomati riverbank, Chhanban, Udaipur, Tripura (23°32'43" N 91°29'05" E). An egg was collected by AK and put into a properly ventilated plastic box. It grew into an adult butterfly by feeding on the *Rumex* leaves provided. It eclosed on 19.v.2021. The adult butterfly (Figure No. 1) and all early stages (Table No. 1) were compared with Kehimkar

(2016) and Bell (1913) respectively. During this opportunistic survey, no parasites were observed. Additionally, immature stages of other individuals of the species were observed in the natural environment.

*Rumex maritimus*, commonly known as Golden Dock, is an annual herb which generally grows on the banks of rivers, lakes and ponds. It is distributed across India, China, North America, Pakistan etc. (<https://indiabiodiversity.org/species/show/266389>).

### Results

RD diligently reviewed the previously published literature (if available). *Leguminosae*, *Apocynaceae*, *Rhamnaceae*, *Euphorbiaceae*, *Cucurbitaceae*, *Theaceae*, *Rubiaceae*, *Guttiferae*, *Osmundaceae*, *Santalaceae*, *Compositae*, *Verbenaceae* families were earlier reported as its host plants (Robinson *et al.*, (2001; Nitin *et al.*, 2018), but the family *Polygonaceae* as well as *Rumex maritimus* were unreported till this record.

Table 1. Mean sizes of the life-history parameters of *Eurema hecabe* when reared on *Rumex maritimus*

Date	Length in mm	Metamorphosis
02.v.2021	1.2 ± 0.05	Laid eggs (10:00 am)
04.v.2021	2.0 ± 0.2	Egg hatched (5:00 pm)

06.v.2021	3.7 ± 0.2	Dormant prior to its 1 <sup>st</sup> moult (12:00 pm)
07.v.2021	7.0 ± 0.2	Dormant prior to its 2 <sup>nd</sup> moult (7:30 pm)
09.v.2021	14.0 ± 0.5	Dormant prior to its 3 <sup>rd</sup> moult (1.00 am)
10.v.2021	17.0 ± 0.5	Dormant prior to its 4 <sup>th</sup> moult (12:30 pm)
13.v.2021	19.0 ± 0.5	Pupa (8.00 am)
'19.v.2021	-	Eclosed into adult butterfly (7:31 am)

The successful breeding and emergence of *Eurema hecabe* on *Rumex maritimus* confirms the extension of its dietary choice which provides potential to adapt to the various habitats in its distribution.

#### Acknowledgement

The authors express their gratitude to Mr. Arghya Chakravorty, Mr. Samiran Roy, Mr. Isaac David Kehimkar, Dr. Dipti Das and Mr. Suman Biswas for assistance in preparation of the manuscript.

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Fig.1: *Eurema hecabe* laying egg on *Rumex maritimus*



Fig.2: *Eurema hecabe* egg on *Rumex maritimus*



Fig.3: *Eurema hecabe* caterpillar on *Rumex maritimus*



Fig.4: *Eurema hecabe* caterpillar on *Rumex maritimus*



Fig.5: *Eurema hecabe* pupa



Fig.6: *Eurema hecabe* adult