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

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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 1st moult (12:00 pm)
07.v.2021	7.0 ± 0.2	Dormant prior to its 2nd moult (7:30 pm)
09.v.2021	14.0 ± 0.5	Dormant prior to its 3rd moult (1.00 am)
10.v.2021	17.0 ± 0.5	Dormant prior to its 4th 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.

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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