

PROCEEDINGS

OF THE

Newa Scotian Institute of Science

SESSION OF 1951-52
VOL. XXIII - PART II.

THE WHITE VEINED DAGGER, *Simyra henrici* Grt.
(LEPIDOPTERA : PHALAENIDAE), AND ITS PARASITES
REARED FROM CAT-TAIL, *Typha* spp.

W. W. Judd

Department of Zoology, University of Western Ontario,
London, Ontario

(Received for Publication June 10th, 1952)

ABSTRACT

Fourteen larvae of *Simyra henrici* were collected from cat-tail leaves in London, Ontario, on September 8, 1951. Eight of the larvae were parasitized, the species of parasites represented being *Rogas stigmator* (Say) (Braconidae), 42.5% males, *Microplitis quadridentatus* (Prov.) (Braconidae) and *Eutritochaeta* sp. (Tachinidae).

The occurrence of the larva of *Simyra henrici* Grt. (*Artilonche albovenosa* Goeze) feeding on cat-tail, *Typha* spp., has been recorded by Claassen (1921), Cole (1931) and Comstock and Dammers (1935). On September 8, 1951 fourteen larvae of this species were found on leaves of cat-tail, *Typha latifolia* L. and *T. angustifolia* L. in a small swamp at the south-east corner of Adelaide and Cheapside Streets in London, Ontario. Some of the larvae were dead and were fastened to the leaves while others were living and were taken from near the outer ends of the leaves where they had chewed off the tips or had frayed the edges. This habit of feeding at the tips of the leaves is referred to by Claassen (1921). Each larva was placed in a cotton-plugged jar and the living larvae were fed on sections of cat-tail leaves. During ensuing months moths and parasites emerged from the larvae or from cocoons. The

moths were identified as *Simyra henrici* Grt. by E. G. Munroe, Systematic Entomology, Department of Agriculture, Ottawa. The three parasites represented were *Rogas stigmator* (Say) (Braconidae), identified by C. F. W. Muesebeck, Insect Identification Division, U. S. Department of Agriculture, *Microplitis quadridentatus* (Prov.) (Braconidae), identified by W. R. M. Mason, Systematic Entomology, Department of Agriculture, Ottawa and *Eutritochaeta* sp. near *noctuiiformis* Smith (Tachinidae), identified by J. F. McAlpine, Systematic Entomology, Department of Agriculture, Ottawa.

Simyra henrici Grt.

Five larvae pupated by September 23 in cocoons spun between the sides of the jars and the cotton plugs. Adults of *S. henrici* emerged from these cocoons on February 18, 28, 29, March 6, and 12, 1952. The pinned specimens are deposited in the collections of the University of Western Ontario.

Rogas stigmator (Say)

Seven dead larvae of *S. henrici* were found resting on light webs of silk on the cat-tail leaves. A larva was attached to a web of several narrow pedicels consisting of hardened, amber-coloured, gummy material projecting from the lower surface of the abdomen of the larva and splayed out at their outer ends of the silken web. The integument of these larvae was dried and distended and in one larva it showed fifty emergence holes, 1 mm. in diameter, perforating the dorsal surface of the thorax and abdomen, while in the other six larvae it was intact. From these six larvae adult wasps, *Rogas stigmator*, emerged through circular holes 1 mm. in diameter in the thorax and abdomen during the period September 13-19. The numbers of male and female wasps that emerged are noted in Table 1, there being fifty-one (42.5%) male wasps and sixty-nine (57.5%) females. Two females are deposited in the U. S. National Museum, the remaining specimens being in the collections of the University of Western Ontario.

Clausen (1940) says that wasps of the subfamily Rhogadinae are limited in their host preferences mainly to larvae of Lepidoptera, upon which they develop internally. In discussing the habits of the larvae he records that "just prior to the formation of the cocoon, the mature larva breaks the host skin ventrally and pushes out that portion of the body contents which has not been consumed, and this material dries and fastens the host remains securely to the substratum." This was probably the origin of the narrow pedicels which fastened the dead larvae of *S. henrici* to the silken webs on the cat-tail leaves. Muesebeck et al. (1951) report *Rogas stigmator* as being reared from *S. henrici* and Cole (1931) reared twenty wasps from one larva. Claassen (1921) reared six wasps from one larva, naming them with the synonym, *Aleides intermedius* Cress.

Microplitis quadridentatus (Prov.)

On September 13 one feeding larva of *S. henrici* has become shrivelled and quiescent on the cotton plug and a tough, brown cocoon about 5 mm. long was lodged between the posterior end of the abdomen and the cotton. On March 4, 1952 a female of *Microplitis quadridentatus* emerged from the cocoon. The specimen is deposited in the Canadian National Collection, Ottawa. Clausen (1940) says of the Microgasterinae that they are limited in their host preferences mainly to lepidopterous larvae and he reports of one species of *Microplitis* that the cocoon is formed beneath the caudal portion of the host body. Muesebeck (1922) and Muesebeck et al. (1951) record that *Arsilonche (Simyra) albovenosa* is a host of *M. quadridentatus*.

Eutritochaeta sp.

On September 13 one larva of *S. henrici* spun a cocoon between the cotton plug and the edge of the jar and on February 2, 1952 an adult tachinid fly emerged. The cocoon was opened and was found to contain the shrivelled larval skin of

the caterpillar and the empty puparium of the fly. The fly, determined as *Eutritochaeta* sp. near *noctuiiformis* Smith by Mr. McAlpine, is deposited in the Canadian National Collection, Ottawa.

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TABLE I

Numbers of male and female *Rogas stigmator* reared from larvae of *Simyra henrici*.

Date	Larva 1		Larva 2		Larva 3		Larva 4		Larva 5		Larva 6		Total Emergents
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	
September													
13			4									♀	4
14			2	4									6
15				3	14	4							21
16					3	11	1		17	1			33
17						1	1	1	1	5		3	12
18	7	2					1	16				12	38
19		6											6
Totals	7	8	6	7	17	16	3	17	18	6	-	15	120