

SHORT COMMUNICATION

New Host Record of The Yellow Steam Borer Moths, *Scirpophaga incertulas* Shall (Lepidoptera: Pyralidae)

Hari Sutrisno

Zoological Division, Research Center for Biology,
Indonesian Institute of Sciences, Jl. Raya Bogor Km 46, Cibinong, 16911 Indonesia
Email: sutrisnohari@yahoo.com

Scirpophaga Treitschke, 1832 is one of the large pyralid genus belonging to the Subfamily Schoenobiinae, consist of 35 species world wide. To date, 8 species have been recorded to occur in Malayan region (Malaya Peninsula, Sumatra, Java, Kalimantan and Lesser sunda). Among of them, *Scirpophaga incertulas* and *S. innotata*, are serious pests of rice in Indonesia. The former species is well-known as yellow stem borers and the latter is as white stem borers. The adult of *S. incertulas* is dimorphism. The male's forewing is ochreous with markings. While in the female is pale yellowish with one dark fuscous spot at lower angle of cell (Lewvanich A. 1981. A revision of the Old World species of *Scircophaga* (Lepidoptera: Pyralidae). *Bull Brith Mus Entomol Ser* 42: 185-298; Siwi SS., A. Kartohardjono, M. Amir & R. Ubaidillah. 1999. *Diversity and species status of stem borer genus Scirpophaga (Lepidoptera: Pyralidae) on gramineous with special reference to paddy and sugar cane*. Report of GEF-Grant No.TE 028657. Research Center for

Biology, LIPI (unpublish)).

In Indonesia, status of the species is still unclear since it has been reported that the body's size and the dark fuscous spot at the female's forewing showing a great variation, especially for the population from paddy field at West Java (Siwi SS., A. Kartohardjono, M. Amir & R. Ubaidillah. 1999. *Diversity and species status of stem borer genus Scirpophaga (Lepidoptera: Pyralidae) on gramineous with special reference to paddy and sugar cane*. Report of GEF-Grant No.TE 028657. Research Center for Biology, LIPI (unpublish)). Are they same species? A study based on molecular data using morphological characters as a guide line to clarify this variation is still going on.

It seems that the problems of *S. incertulas* not only on the taxonomic status but also on the information of the host plants. The host plants of this species are still in debate, whether only rice or this species has alternative hosts. In Taiwan, Shiraki T. (1917. Paddy borer, *Schoenobius incertulas* Wlk. *Spec Rep Agric Exp Stn Taihaku, Formosa* 15:

1-256) studied the alternative host plants of this species by checking the stem of 15 different plants in the field every month from 1909-1911. He could not found a single larvae of the species feeding on them. The plants were *Miscanthus sinensis*, *Zizania latifolia*, *Panicum repens*, sugar-cane, barely and teosinte. Fletcher TB. & CC. Ghosh. (1920. Borers in sugarcane, rice, etc. *Rep Proc 3rd ent Meet Pusa* 1: 354-417) and Lewvanich A. (1982. A revision of the Old World species of *Scircophaga* (Lepidoptera: Pyralidae). *Bull Brith Mus Entomol Ser* 42: 185-298) stated that there is no alternative host plant of this species, but Logothetis C. (1950. *Review of available information on some insects affecting the rice crop in Southeast Asia*. Washington, DC: Multigraph) argued that the alternative host plants are many gramineous plants, especially genus *Cyperus* (Cyperaceae). In addition, in Java many *Cyperus* has been suspected as alternative hosts but there is no further information about its species (Siwi, SS. Biotechnology and Genetic Resources Institute, Department of Agriculture. pers.comm). All the hostplants of *S. incertulas* which have been recorded are presented in Table 1.

Based on my observation, I found their larvae of *S. incertulas* bore at *Hypolytrum nemorum* (Vahl.) Spreng. (Cyperaceae) (Fig. 1). This hostplant grows up at open area of the Setya Alam peat swamp forest research station, Sebangau, Central Kalimantan (2°45'45,

8°S 111°56'42, 4"; 10 m above sea level). They are very common to be found at the peat swamp forest in Kalimantan and haven been known world-wide distribution form tropical to subtropical regions, especially at the lowland area and peat swamp forest.

In addition, I found also the adult of *S. incertulas* which was trapped at light trap near *H. nemorum* (See at species list, H. Sutrisno, 2005. Moths diversity at Sebangau peat swamp and Busang river secondary rain forest, Central Kalimantan. *Hayati* 12: 121-126.). This finding support the view that the host plant of *S. incertulas* is not restricted to rice but the larvae of this species also can bore other gramineous plants. (Logothetis, C. 1950. *Review of available information on some insects affecting the rice crop in Southeast Asia*. Washington, DC: Multigraph).

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Table 1. The hostplants of *S. incertulas* based on references

No	Hostplants	References
1	<i>Oriza sativa</i> , <i>Coix lachrymal</i> , <i>Ischoemum aristum</i> , <i>Adropogon</i> <i>odoratus</i> and <i>Anthistiria ciliata</i>	Lewvanich, A. 1981. A revision of the old world species of Scirpophaga (Lepidoptera: Pyralidae). <i>Bulletin of the British Museum (Natural History)</i> . 42 (4): 185-298
2	<i>Cyperus</i> spp	Logotheitis, C. 1950. <i>Review of available information on some insects affecting the rice crop in southeast Asia</i> . Washington DC: Multigraph.



Figure 1. Specimen of *Hypolytrum nemorum* (Vang) Spreng with its flower.