

LANDING OF *EPIOPHLEBIA SUPERSTES* (SEL.) LARVAE ON SNOW-COVERED SLOPES (EPIOPHLEBIOPTERA: EPIOPHLEBIIDAE)

E. superstes occurs widely in the mountain streams of Japan. In northern Japan, its larvae were noticed walking on snow-covered mountain slopes in April. I have investigated their landing on the snow during March and April 2004, 2005, at Nurukawa, Aomori prefecture, Japan.

Inhabiting small mountain streams, numerous

larvae were seen crawling up on steep snow walls during 3-27 April (Fig. 1), with a peak in the second half of April. With the approach of the spring season in April, the snow-covered stream opens up here and there, and the larvae crawled up through the openings and moved slowly on the snow during 09:00-14:30 h. They landed on the western bank of the stream that flows in southern direction. It might be advantageous to them catching some sunshine in the morning. The larvae were more frequently landing on sunny days than in cloudy weather.

The walking larvae entered the cavities around the tree roots or the crevices in the snow that was still covering the steep banks, and found shelter under the dead leaves. Probably they remain under the leaves until emergence. The latter commences at this locality in mid May, meaning the larvae may be able to survive on land during almost a month.

The air and water temperatures of the stream ranged in April between 1-14°C and 3-5°C, respectively. The thoracic surface temperature



Fig. 1. larva crawling on a steep, snow-covered slope; 19 April 2005, at 12:26 p.m. (Photo K. Takahashi).

of the individuals on the snow amounted to 1.3-12.4°C and it was positively correlated to the air temperature.

Some references to the publications on this subject: H. NARAOKA, 2004, *J. nat. Hist. Aomori* 9: 25-30; – H. NARAOKA & N. ITOH, 1966, *New Entomol.* 15(2): 4.

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