Occurrence of the Clover Leaf Weevil, *Hypera punctata* (F.) in Japan¹

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(Received April 13, 1979)

On September 29th 1978 the author and other plant inspectors found quite a strange weevil in a garden located on a hill in Yokohama City. They were found hidden in trash on the surface of the ground, where white clover was lush. External characteristics and the aedeagus of the weevil were observed to be consistent with those of the clover leaf weevil, *Hypera punctata* (F.) redescribed by TITUS (1911). A pair of the adult specimens were sent to Systematic Entomology Laboratory of IIBIII, U.S.D.A. for positive identification. Dr. D. R. WHITEHEAD kindly determined the identity of the weevil as *H. punctata* (F.). The adult weevil is about 8 mm in length, stout in shape and brownish in color with black punctures on elytra (Fig. 1).

This is the first report on this weevil in Japan.

In October and November 1978 an emergency survey was made by Yokohama Plant Protection

Fig. 1. *Hypera punctata* adult.

Station partly in cooperation with Kanagawa Prefectural Government. Main objectives selected for the survey were parks, piers and unoccupied spaces with white or red clovers growing especially in the neighborhood of the site of first finding. Trash, soil surfaces and bases under stones were thoroughly observed and the weevils were found from only two spots, including the site of first finding, out of 39 spots surveyed (Fig. 2). Both the infested spots are at a distance only about

Fig. 2. Map showing the areas surveyed for *H. punctata*. ○●: Spots surveyed. ●: Spot infested; the number of weevils collected

¹ Appl. Ent. Zool. **14** (4) : 494-495 (1979).

1.5 km apart from each other and located on the same hill which had been once occupied by the U.S. Forces after the Second World War. A total of 90 adult weevils were collected from these points.

In Japan five species of weevils belonging to the genus *Hypera* have been reported so far, among which the species injurious to legume crops are *H. nigrirostris* (F.) and *H. viciae* (GYLLENHAL) (SAKAMOTO, 1971). The clover leaf weevil, *H. punctata* is believed to be a native of Europe and first noted as injurious to clover in United States in 1881 (HERRICK and HADLEY, 1922). Both in Europe (PICARD, 1914) and North America (TOWER and FENTON, 1920), the weevil was regarded as a species of minor economic importance and few references to the species are available. While there are an enormous number of references to the alfalfa weevil, *H. postica* (GYLLENHAL), which was also introduced from Europe into North America. The latter species of major economic importance is not known to occur in our country. Although the larvae of both *H. punctata* and *H. postica* are legume feeders, the adult of the both species are polyphagous and feed on a wide variety of plants (METCALF and FLINT, 1951; TITUS, 1911).

In 1978 the adults of *H. postica* were intercepted at port quarantine 17 times on pomegranates (Fig. 3) and once on celery imported from the United States to Keihin Ports (including Yokohama Port), Kobe Port and Tokyo International Air Port. While *H. punctata* was found only once by quarantine inspection until now. In January 1979 a single dead adult of *H. punctata* was found on alfalfa hay imported from the United States to Yokohama Port. Although there is no evidence to show the route of the original invasion of *H. punctata* yet, the site of first finding and the interception records of both the *Hypera* weevils may give us some clues to find a proper answer. The occurrence of *H. punctata* here in Yokohama in-

Fig. 3. California pomegranates on which *H. postica* was intercepted at Yokohama Port ; arrows indicate the calix end where adult weevils were hiding. (Photo by I. HOSOKAWA)

icates that a more careful watch should be kept for possible invasion of other *Hypera* weevils of more economic importance.

The author thanks Dr. D. R. WHITEHEAD for identifying the weevil, Mr. Mochiyuki SONDA, Chief of this Division for reading and correcting the manuscript and Mr. Hiroshi KATO and other plant inspectors of this Station for their cooperation.

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