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The Developmental Stages of Some Species of the Japanese Pentatomoidea (Hemiptera)

XI. Developmental Stages of *Scotinophara* (Pentatomidae)

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The genus *Scotinophara*, which belongs to the subfamily Podopinae, is represented in Japan by four species, *Scotinophara lurida* (BURMEISTER), *S. horvathi* DISTANT, *S. scottii* HORVÁTH and *S. scutellata* SCOTT. In the present paper, the developmental stages of the first three species, together with their generic diagnoses and biological notes, are given. Prior to entering into the subject, I express my sincere thanks to Professor T. ISHIHARA and Mr. H. HASEGAWA who kindly advised me during all the time of the present work. My gratitude is also due to Messrs. H. KOIKE and T. KIMURA who helped me in getting some of specimens.

THE DIAGNOSES OF THE GENUS SCOTINOPHARA

A. Egg

Short ovoid, slightly angulated upperly. Chorion white, sculptured with a faint reticulation and small punctures. Micropylar projections white, capitate, very short, weakly bended inward, about 35 to 45 in number. Egg-opener well-chitinized T-shaped, with membranous appendages which are translucent centrally, graish brown infero-laterally. Egg-mass ordinarily consisting of about 6 to 14 eggs, arranged in two rows.

The eggs of the present genus are easily distinguishable from that of the related genus *Dybowskyia*, by the chorion which is punctated and is not provided with minute spines on reticulation (KOBAYASHI, 1951).

B. Larvae

a. Key to the instars

1(6) Wing-pads unrecognized.

- 2(5) Metanotum wider than mesonotum.
- 3(4) Eyes not protruding...The 1st instar
- 4(3) Eyes clearly projecting.The 2nd instar
- 5(2) Metanotum narrower than mesonotum.The 3rd instar
- 6(1) Anterior wing-pads distinguishable.
- 7(8) Posterior wing-pads unrecognized.....The 4th instar
- 8(7) Posterior wing-pads conspicuously developed.....The 5th instar

b. Diagnoses of the larvae

Body: elliptical, rather short in the 1st instar; stigmata placed inside the connexiva of abdominal segments from second to seventh; body above furnished with light brown short hairs and dark brownish mussive punctures. Head: median lobe evenly arched anteriorly; lateral lobes rather slender in the 2nd to the 5th instars; antenniferous tubercles developed. Thorax: pronotum of which front angles are well angulated in the 5th instar narrower than mesonotum; lateral margins serrated in the 2nd to the 5th instars. Abdomen: dorsal abdominal plate with anterior odoriferous gland orifices almost fusiform, rather stout, weakly constricted medially and as wide as that with median odoriferous gland orifices in the 1st instar, while the plates in the 2nd to the 5th instars rather slender, conspicuously constricted medially and narrower than that with median odoriferous gland orifices; connexiva comparatively small, semi-circular. External sexual characters: the female of the 4th instar with an indistinct triangular concavity on the centre of posterior margin of the eighth

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abdominal sternite; the female of the 5th instar with a brown longitudinal line on the centre of posterior half of the eighth abdominal sternite and a rather distinct triangular structure on the centre of posterior margin of this sternite; the male larvae without such structures. Colouration ordinarily light or dark brownish.

The larvae of the present genus are distinguishable from that of the related genus *Dybowskyia*, by the antenniferous tubercles which are well developed (KOBAYASHI, 1951).

DIAGNOSES OF THE JAPANESE SPECIES OF THE GENUS *SCOTINOPHARA*

Key to the species

- 1(4) Egg: reticulation irregular. 1st instar: dorsal abdominal plate with anterior odoriferous gland orifices rather roundish laterally. 2nd and the 3rd instars: antenniferous tubercles invisible from the dorsal side. 4th and the 5th instars: median lobe shorter than lateral lobes.
- 2(3) Egg: punctures on chorion all minute. 1st instar: dorsal abdominal plate of the first tergum wider than that of the second. 2nd to the 5th instars: body above rather densely furnished with violently curved, rather long, short hairs.*S. scottii*
- 3(2) Egg: besides minute punctures, massive ones present on diverging points of reticulation. 1st instar: dorsal abdominal plate of the first tergum narrower than that of the second. Each instar: body above sparsely furnished with feebly curved, very short hairs.*S. horvathi*
- 4(1) Egg: reticulation regular hexagonal. 1st instar: dorsal abdominal plate with anterior odoriferous gland orifices truncated laterally. 2nd to the 5th instars: antenniferous tubercles visible from the dorsal side; median

lobe longer than lateral lobes.
..... *S. lurida*

1. *Scotinophara lurida* (BURMEISTER)
[Nom. Jap.: *Kuro-kamemushi*]

1834 *Tetyra lurida* BURMEISTER, NOV. Acta. Acad. Leop. Carol. 16, Suppl. 1, p. 288.
1902 *Podops lurida*, DISTANT. Faun. Brit. Ind. Rhyn. 1: 74.
1904 *Scotinophara lurida*, MATSUMURA, THOUS. Ins. Japan, 1: 188, Pl. 15, fig. 4.
1906 *S. lurida*, OSHANIN, Palae. Hem. 1: 71.
1909 *S. lurida*, KIRKALDY, Cat. Hem. (Het.), 1: 235.
1926 *S. lurida*, ESAKI, Ann. Mus. Nat. Hung. 24: 146.
1935 *S. lurida*, HOFFMANN, Cat. Cert. Scut. Chin. etc. 7: 40~41.
1957 *S. lurida*, ISHIHARA, Taxono-Agronomic Ent. Japan, pp. 178~180.

The present species which severely damages a rice plant is widely distributed in Japan (Honshu, Shikoku, Kyushu), Loochoo, Manchuria, China, Indo-China, Assam, India, Celebes, etc. It is one generation a year in Japan. The adults hibernated usually deposit eggs on the host-plants in July and August, and the new adults appear in August or September, passed about 40 to 50 days after the egg deposition. The food-plants which have already been reported are as follows: a rice plant, the water-oat (*Zizania latifolia* TURCZ.), a Deccan grass (*Panicum* spp.), millets (*Setaria italica* BEAUV.), Indian corn (*Zea Mays* L.), barley (*Hordeum vulgare* L.), sugar cane (*Saccharum officinarum* L.), etc.

A. Egg

Length about 1 mm, diameter about 0.9 mm and 0.8 mm. Light brownish green at first, pale yellowish red later, but the surface whitish chorion furnished with a hexagonal reticulation, and densely and irregularly sculptured with rather massive punctures. Micropylar projections about 30 μ , about 40 to 45 in number. Egg-opener brown, about 0.20 mm vertically, about 0.32 mm transversally. Egg-mass usually

¹ There is plenty of literature on bionomics and figures of eggs and larvae besides KATSUMATA (1930), KAWASE *et al.* (1959), NAKAGAWA (1902) and TSUTSUI (1957).

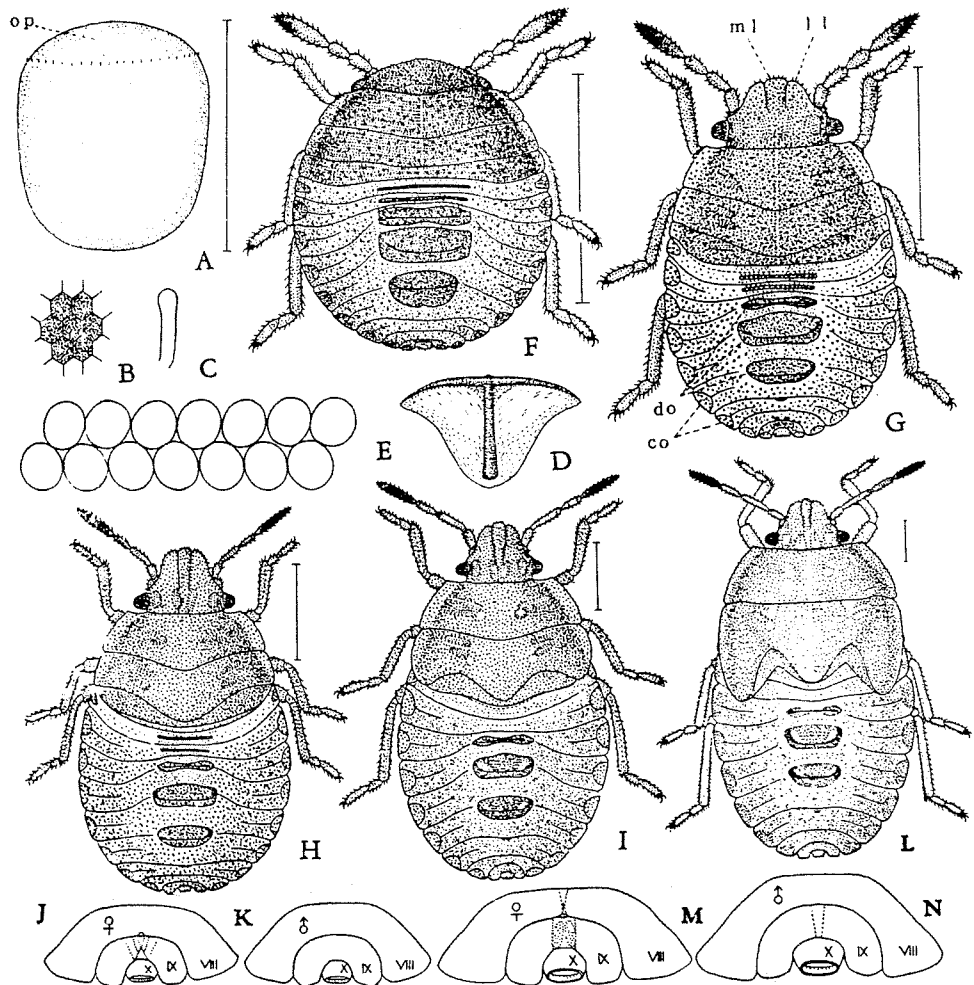


Fig. 1. *Scotinophara lurida* (BURMEISTER) [Nom. Jap.: *Kuro-kamemushi*].

A: egg, B: reticulation, C: micropylar projection, D: egg-opener, E: egg-mass, F: the first instar, G: the second instar, H: the third instar, I: the fourth instar, J: ventral view of genital segments of the fourth instar female larva, K: ditto, male larva, L: the fifth instar, M: ventral view of genital segments of the fifth instar female larva, N: ditto, male larva, co: connexiva, do: dorsal abdominal plates with odoriferous gland orifices, ll: lateral lobe, ml: median lobe, op: operculum (calibration 1 mm).

consists of two rows or more containing 14 eggs or less.

B. Larvae

The first instar: Length about 1.3 mm. Head, thorax and dorsal abdominal plates brown except light brown thoracic lateral margins. Connexiva light brown (common to the 2nd to the 5th instars). Abdomen yellowish brown or reddish brown, with reddish brown areas between dorsal ab-

dominal plates and red abdominal junctions. Eyes fresh red. Antennae: mostly pale yellowish brown tinged with light red; the 4th segment apically fuliginous. Legs: femora brownish, proximally paler; tibiae and tarsi light brown, except tarsal apices which are fuscous. Median lobe longer than lateral lobes (common to the 2nd to the 5th instars). Abdominal 1st segment with a dorsal abdominal plate

which is wider than that of the 2nd segment (common to the 2nd and the 3rd instars). Body above sparsely furnished with light brown short hairs (common to the 2nd to the 5th instars). The ratio of the median lengths of thoracic terga pro-: meso-: metanotum=3.7:2.3:1. The ratio of the antennal segments I:II:III:IV=1:1.2:1.1:3.0.

The second instar: Length about 2.0 mm. Head and thorax mostly yellowish brown or light reddish brown, but the apices of lateral lobes and thoracic lateral margins paler, calluses dark brown (common to the 3rd instar). Dorsal abdominal plates dark brown (common to the 3rd instar). Abdomen: ground colour whitish or light brownish, partially tinted with small red dots; anterior portions almost white; abdominal junctions and areas between dorsal abdominal plates reddish except the median white stripes. Eyes blackish red (common to the 3rd and the 4th instars). Antennae: mostly light brown; apices of the 1st to the 3rd segments each reddish; the 4th apically fuliginous. Legs: mostly light brown or brown; tarsi pale yellowish brown, with fuscous apices (common to the 3rd instar). Connexiva minutely serrated (common to the 3rd to the 5th instars). The ratio of the median lengths of thoracic terga pro-: meso-: metanotum=6.7:5.0:1. The ratio of the antennal segments I:II:III:IV=1:1.1:1.1:2.5.

The third instar: Length about 3.3 mm. Abdomen light brown, scattered with reddish brown small dots, but the anterior parts almost white without the dots. Antennae: the 1st to the 3rd segments and the base of the 4th light brown; the bulk of the 4th fuliginous; antennal junctions light brown; both ends of the 3rd segment tinted with light red. Metanotum of which lateral sides are almost pointed barely narrower than mesonotum. The ratio of the median lengths of thoracic terga pro-: meso-: metanotum=8.3:7.3:1. The ratio of the antennal segments I:II:III:IV=1:1.4:1.2:2.7.

The fourth instar: Length about 5 mm. Head and thorax: mostly light brown or brown; the central portion and lateral margins of thorax paler; calluses brown; small round two pair portions interior to calluses of pronotum and of mesonotum pale yellowish white. Dorsal abdominal plates brown or dark brown, except pale yellowish brown or pale yellowish white portions anterior to median and posterior odoriferous gland orifices and blackish brown portions exterior to the both orifices (common to the 5th instar). Abdomen pale yellowish brown or brownish, scattered with reddish dots and specks, the anterior parts whitish without these dots and specks. Antennae: the 1st segment brown or dark brown; the 2nd light brown or brown, apically reddish; the 3rd brown except reddish both ends; the 4th fuliginous, proximally reddish brown, apically paler; antennal junctions pale yellowish brown (common to 5th instar). Legs: mostly yellowish brown or brown; tarsi distally fuscous (common to the 5th instar). The ratio of the median lengths of thoracic terga pro-: meso-: metanotum=9.6:10.0:1. The ratio of the antennal segments I:II:III:IV=1:1.7:1.3:2.5.

The fifth instar: Length about 7.5 to 8.5 mm. Closely resemble the former instar in colouration, however the anterior parts of abdomen are not whitish as the former instar. The ratio of the median lengths of thoracic terga pro-: meso-: metanotum=1:1.5:0. The ratio of the antennal segments I:II:III:IV=1:2.5:1.8:2.8.

2. *Scotinophara horvathi* DISTANT [Nom. Jap.: *Ô-kuro-kamemushi*]

1879 *Scotinophara vermiculata* HORVÁTH, Termész. füzet. III, 143 (not Vollenhoven).

1883 *Scotinophora* (!) *Horvathi* DISTANT, Trans. Ent. Soc. Lond. 1883, P. 421, t. 19, f. 3.

1906 *Scotinophara horvathi*, OSHANIN, Palae. Hem. 1: 71.

1909 *S. horvathi*, KIRKALDY, Cat. Hem. (Het.), 1: 235.

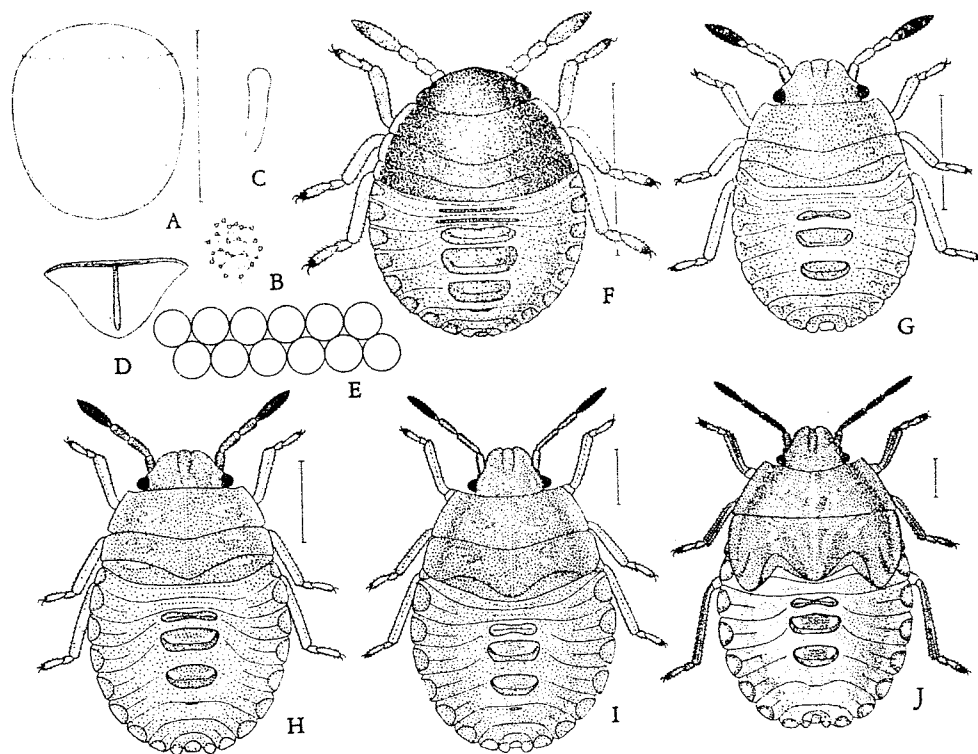


Fig. 2. *Scolinophara horvathi* DISTANT [Nom. Jap.: *Ō-kuro-kamemushi*]
 A: egg, B: reticulation, C: micropylar projection, D: egg-opener, E: egg-mass, F: the first instar, G: the second instar, H: the third instar, I: the fourth instar, J: the fifth instar (calibration 1-mm).

1957 *Podops horvathi*, ISHIHARA, Taxono-Agro-nomic Ent. Japan, p. 180.

This species inhabits Honshu and Kyushu of Japan. The adults hibernated deposit eggs on the host plants, which are a reed (*Phragmites communis* TRIN.) and Job's-tears (*Coix lachryma-Jobi* L.) (HIURA, 1958; and others), or on other things in May, and the new adults emerge in August or September.

A. Egg

Length about 1.1 mm, diameter about 1.0 mm. Pale yellowish brown at first, light orange-coloured later, but the surface whitish. Chorion rather densely sculptured with minute punctures, and sparsely punctated with massive punctures on diverging points of irregular reticulation. Micropylar projections about 30μ , about 35 in number. Egg-opener brown or

blackish brown, laterally paler, about 0.20 mm vertically, about 0.39 mm transversally. Egg-mass usually consists of two rows or more containing 14 eggs or less.

B. Larvae

The first instar: Length about 1.4 mm. Head and thorax darkish brown except the central area and thoracic lateral margins which are paler. Dorsal abdominal plates brown (common to the 2nd instar). Connexiva light brown (common to the 2nd to the 5th instars). Abdomen light brown, with light reddish junctions. Eyes darkish red. Antennae: the 1st to the 3rd segments pale yellowish brown; the 4th light brown basally, dark apically. Legs pale yellowish brown, with fuscous tarsal apices (common to the 2nd and the 3rd instars). Median lobe longer than lateral lobes (common to the 2nd and the 3rd instars).

Dorsal abdominal plate of the 1st abdominal segment narrower than that of the 2nd. Body above sparsely provided with light brown short hairs. The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 3.6:1.8:1. The ratio of the antennal segments I:II:III:IV = 1:0.9:0.9:2.4.

The second instar: Length about 2.2 mm. Head and thorax light brown, with paler thoracic lateral margins. Abdomen: mostly whitish, submarginally light bluish green, scattered with darkish red dots; abdominal junctions light reddish or light bluish green (common to the 3rd instar). Eyes reddish black (common to the 3rd to the 5th instars). Antennae: the 1st segment dark; the 2nd and the 3rd light brown; the 4th mostly black except the base. Connexiva minutely serrated (common to the 3rd and the 4th instars). Body above sparsely furnished with light brown, weakly curved, short hairs (common to the 3rd to the 5th instars). The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 5.8:3.4:1. The ratio of the antennal segments I:II:III:IV = 1:1.1:1.0:2.4.

The third instar: Length about 3.5 mm. Head, thorax and dorsal abdominal plates mostly light brownish, ordinarily with white portions inside calluses of pronotum and of mesonotum and on the front of odoriferous gland orifices (common to the 4th and the 5th instars). Antennae: the 1st to the 3rd segments nearly dark brown; the 4th mostly black (common to the 4th instar). Metanotum of which lateral margins are clearly distinguishable from the posterior margin narrower than mesonotum. The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 6.4:5.0:1. The ratio of the antennal segments I:II:III:IV = 1:1.3:1.15:2.3.

The fourth instar: Length about 5 mm. Abdomen: mostly light brown; areas between dorsal abdominal plates except the median streaks, an area posterior to the posterior dorsal plate and submarginal areas interior to connexiva all dark green

or dark gray; abdominal junctions partially light red or dark green. Legs light brown, with fuscous tarsal apices. Median lobe barely shorter than lateral lobes. The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 10.6:10.0:1. The ratio of the antennal segments I:II:III:IV = 1:1.6:1.3:2.2.

The fifth instar: Length about 7 to 8 mm. Body and legs resemble the former instar in colouration. Antennae: the 1st segment dark brown; the 2nd and the 3rd segment fuliginous; the 4th mostly black. Median lobe considerably shorter than lateral lobes. The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 1:1.35:0. The ratio of the antennal segments I:II:III:IV = 1:1.9:1.4:2.1.

3. *Scotinophara scotti* HORVÁTH [Nom. Jap.: *Hime-kuro-kamemushi*]
 1874 *Scotinophara tarsalis* SCOTT, Ann. & Mag. Nat. Hist. ser. 4, 14: 292 (name preoccupied).
 1879 *S. scottii* HORVÁTH, Term. Füzet. 3: 144 (new name).
 1906 *S. scotti*, OSHANIN, Palae. Hem. 1: 71.
 1909 *S. scottii*, KIRKALDY, Cat. Hem. (Het.), 1: 235.
 1926 *S. scotti*, ESAKI, Ann. Mus. Nat. Hung. 24: 145.
 1935 *S. scottii*, HOFFMANN, Cat. Cert. Scut. Chin. etc. 7: 41~42.
 1957 *Podops scotti*, ISHIHARA, Taxono-Agronomic Ent. Japan, p. 180.
- The present species which is distributed in Honshu, Shikoku and Kyushu of Japan has one generation a year. The adults hibernated deposit eggs on the host plants, which are rice plant, sugar cane, *Pennisetum japonicum* TRIN., *Digitaria ciliaris* PERS., *Poa annua* L. etc., or on other things in May, and the new adults emerge in August or September (MIYAMOTO, 1956; HIURA, 1958; YAGO, 1943; and others).

A. Egg

Length about 0.95 mm, diameter about 0.85 mm. Light brown at first, partially reddish later, but the surface whitish. Chorion furnished with an irregular reticulation, and sparsely sculptured with

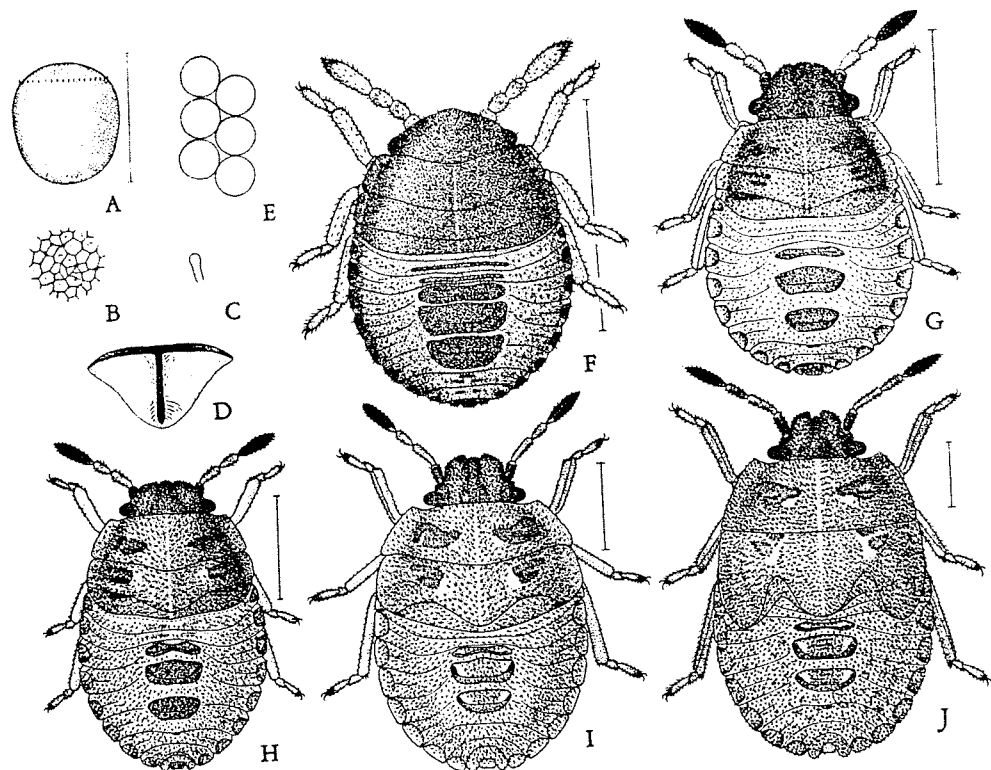


Fig. 3. *Scotinophara scottii* HORVÁTH [Nom. Jap.: *Hime-kuro-kamemushi*]
 A: egg, B: reticulation, C: micropylar projection, D: egg-opener, E: egg-mass. F: the first instar, G: the second instar, H: the third instar, I: the fourth instar, J: the fifth instar (calibration 1 mm).

minute punctures. Micropylar projections about 35 in number. Egg-opener mostly black, laterally paler, about 0.16 mm vertically, about 0.29 mm transversally. Egg-mass ordinarily consists of two rows containing 6 eggs or less.

B. Larvae

The first instar: Length about 1.2 mm. Head, thorax, dorsal abdominal plates and connexiva dark brown. Abdomen light brown, with reddish abdominal junctions. Eyes dark red. Antennae: mostly pale yellowish brown; the 2nd and the 3rd segments partially reddish; the 4th apically fuliginous. Legs pale yellowish brown, with gray tarsal apices. Median lobe longer than lateral lobes (common to the 2nd and the 3rd instars). Body above provided with light brown short hairs. The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 3.8:2.3:1.

The ratio of the antennal segments I:II:III:IV = 1:1.0:1.1:2.8.

The second instar: Length about 1.8 mm. Head, thorax and dorsal abdominal plates: mostly blackish brown; thoracic central portion and lateral margins paler; mesonotum with a pair of white indistinct portions inside calluses (common to the 3rd instar). Connexiva mostly brownish (common to the 3rd to the 5th instars). Abdomen: mostly whitish or light brown; the central portion brownish except the median streak; abdominal junctions reddish. Eyes reddish black or dark red (common to the 3rd to the 5th instars). Antennae: the 1st segment mostly darkish black; apex of the 1st to the base of the 4th mostly pale yellowish brown or light brown; the 2nd and the 3rd junctions usually tinted with light red; the 4th mostly black (common to the 3rd instar). Legs: femora blackish brown

or fuscous, basally light brown or whitish; tibiae and tarsi mostly light brown, with fuscous tarsal apices (common to the 3rd instar). Connexiva minutely serrated (common to the 3rd to the 5th instars). Body above rather densely furnished with light brown, strongly curved, somewhat long, short hairs (common to the 3rd to the 5th instars). The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 6.7:4.3:1. The ratio of the antennal segments I:II:III:IV = 1:1.3:1.3:3.0.

The third instar: Length about 2.5 mm. Colouration resemble the former instar, although abdomen is mostly pale yellowish brown, except for light brown areas between dorsal abdominal plates, dark portions anterior to the anterior dorsal abdominal plate and greenish submarginal areas interior to connexiva. Metanotum which is laterally pungent narrower than mesonotum. The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 7.5:5.5:1. The ratio of the antennal segments I:II:III:IV = 1:1.3:1.2:2.4.

The fourth instar: Length about 3.5 mm. Head mostly blackish brown. Thorax mostly brown, with two pairs of white portions inside darkish brown calluses of pronotum and of mesonotum and a whitish line on the median line. Abdomen light greenish white or whitish, scattered with reddish small dots and specks. Dorsal abdominal plates mostly brown, except odoriferous gland orifice areas which are anteriorly light brown or whitish and laterally dark brown. Antennae: the 1st segment blackish brown, distally light brown or whitish; the 2nd and the 3rd mostly dark brown; distal end of the 2nd and both ends of the 3rd orange yellow or yellowish red; the 4th mostly black, proximally reddish. Legs: femora mostly dark brown, basally very paler, terminally light brown; tibiae and tarsi light brown, with dark tarsal spines. Median lobe somewhat shorter than lateral lobes. Tibiae distally with several dark brown

short setae (common to the 5th instar). The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 9:9:1. The ratio of the antennal segments I:II:III:IV = 1:1.3:1.1:2.2.

The fifth instar: Length about 5.4 mm. Colouration almost similar to the former instar. Median lobe considerably shorter than lateral lobes. The ratio of the median lengths of thoracic terga pro-: meso-: metanotum = 1:1.22:0. The ratio of the antennal segments I:II:III:IV = 1:1.5:1.1:1.9.

4. *Scotinophara scutellata* SCOTT

1880 *Scotinophara scutellata* SCOTT, Trans. Ent. Soc. Lond. 1880, p. 307.

1902 *Podops scutellata*, DISTANT, Faun. Brit. Ind. Rhyn. 1:77.

1906 *Scotinophara scutellata*, OSHANIN, Palae. Hem. 1:72.

1909 *S. scutellata*, KIRKALDY, Cat. Hem. (Het.), 1:235.

The present species which has been reported from Ceylon, China and Japan was originally described from Japan by SCOTT in 1880. However, it has not been re-collected yet from Japan, and its developmental stages and biological features are unknown.

SUMMARY

The developmental stages of three Japanese species, *Scotinophara lurida* (BURMEISTER), *S. horvathi* DISTANT and *S. scottii* HORVÁTH, which are very injurious to a rice plant, sugar cane and some cereal plants or grasses, together with their generic diagnoses and biological notes, are given in the present paper.

The eggs and larvae of the present genus are easily distinguishable from those of the related genus *Dybowskyia*, by the chorion which is punctated and is not provided with minute spines on reticulation and the antenniferous tubercles which are well developed.

The three species of the Japanese *Scotinophara* are discernible each other by the key presented in the text.

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摘 要

日本産カメムシ上科の幼期に関する研究

第11報 *Scotinophara* 属の幼期

小 林 尚

徳島県農業試験場

クロカメムシ属は日本に4種類分布していることになっているが、現在その分布が明らかなのはクロカメムシ、オオクロカメムシおよびヒメクロカメムシの3種類だけである。これらは稲、甘藷、その他の穀類やホモノ科雑草を害する農業上極めて重要な一群であるが、それらの卵および幼虫の形態はクロカメムシについて不完全に記録されているだけで、他の種類については全く不明であった。本報では、クロカメムシ属および上記3種の卵および幼虫の形態的特徴を記載し、近縁のハナダカメムシ属との識別点および3種の検索表を明らかにすると共に、食草や生態を略述した。

本属の卵および幼虫は、卵の網状構造に小刺がなく、表面に小点刻を装うことと、幼虫の触角突起が顕著に発達することで、近縁のハナダカメムシ属とは容易に識別できる。

本属の上記3種は次の検索表によって互に識別できる。

1(4) 卵かく上の網状構造は不規則。1令幼虫ではしゅ

うせん(臭腺)前部開口を有する腹背板の側端は丸みを帯びる。2・3令幼虫では触角突起が背面より見えない。4・5令幼虫では中葉が側葉より短い。

- 2(3) 卵かく上の点刻は小点刻のみ。1令幼虫の腹部第1節の腹背板は第2節のものより広い。2~5令幼虫は体上に強く曲ったやや長い短毛を比較的密に装う。……………ヒメクロカメムシ
- 3(2) 卵かく上の点刻は小点刻のほか、網状構造の交点に大点刻がある。1令幼虫の腹部第1節の腹背板は第2節のものより狭い。2~5令幼虫は体上に弱く曲った短毛を疎に装う。……………オオクロカメムシ
- 4(1) 卵かく上の網状構造は規則的な六角形状。1令幼虫ではしゅせん前部開口を有する腹背板の側端はさい(截)断状。2~5令幼虫では触角突起が背面より見え、中葉は側葉より長い。……………クロカメムシ