

Studies on Flies in Korea

4. On the Hitherto Unreported Fly Species in Korea

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韓國產 파리의 研究
第四報 韓國未記錄 파리에 關하여

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摘 要

1965年 8月 5日부터 18일까지 江原道 雪岳山の 衛生昆蟲 파리類를 約 2000個體 採集해서 整理한 結果 Muscidae 8種, Anthomyidae 4種, Calliphoridae 8種, Sarcophagidae 18種, 以上 37種이었다. 其中 韓國未記錄種으로 밝혀진 것은 다음과 같다.

1. *Sarcophaga sichotealini* ROHDENDORF, 1938은 堀(1954)가 新種 *Sarcophaga jezensis*로 發表했다. 筆者는 堀가 發表한 *Sarcophaga jezensis*를 *Sarcophaga sichotealini*의 synonym으로 斷定했다.

2. *Anthomyia illocata* WALKER, 1856은 Anthomyidae에 屬하는 衛生害蟲으로 追加한다.

3. *Hermymia beelzebul* WIEDEMANN, 1830; *Servillia luteola* COQUILLET, 1898; *Gymnosoma rotundatum* LINNE, 1758 以上 3種은 衛生에 關係되지 않는 파리로 追加한다.

INTRODUCTION

During the period from 5 to 15, August 1965, the author had made collection of flies at Mt. Sol-ak, Kangwon-Do and a total of 2000 specimens was collected. A close examination of the specimens reveals that *Sarcophaga sichotealini* (ROHDENDORF, 1938) and *Anthomyia illocata* WALKER, 1956 were hitherto unreported from Korea.

The author wishes to express his deep appreciation to Dr. Rokuro Kano to whom he owes for the identification of the said two species.

DESCRIPTIONS

Sarcophaga sichotealini (ROHDENDORF, 1938)

(Trans. Sikhote Alin State Reserve, vol. II, pp. 101-104)

Male

Body length: 7 mm

Head: Frons about 1/3 width of one eye; frontal vitta black; parafrontals and parafacials with golden pollen; antennae dark brown, with length of 3rd segment two times that of 2nd segment; frontal bristles 8 pairs; 1st row of postocular setae regular, other rows irregular; palpi black.

Thorax: Scutum with golden pollen, with 3 black longitudinal stripes; acrostical bristles 0+1; dorsocentral bristles 3+3; intra-alar bristles 1+3; humeral bristles 3; posthumeral bristles 1 or 2; prescutural bristles one; supra-alar bristles two or three; apical scutellar bristles 1 pair; subapical scutellar bristles one pair very long; basal

scutellar bristles one.

Wings: Hyaline; r1 bare; r4 +5 with a row of about 9 setae located dorsally extending more than half way from basal node to r-m; halter brown.

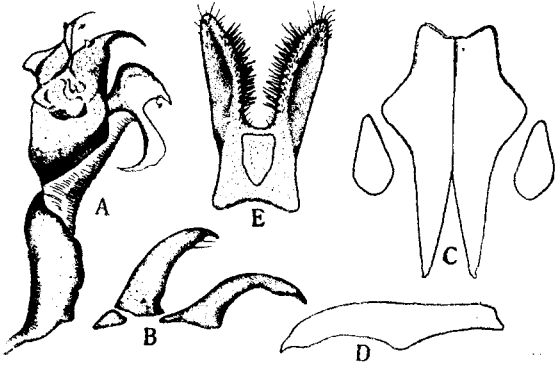


Fig. 1. *Sarcophaga sichotealini*

A: Phallosome B: Paramere C: Forceps
D: Lateral view of forceps E: 5th sternite

Legs: Black; fore femur with a pair of rows of bristles on the dorsal surface, a row of long bristles along the ventral surface; mid femur with a pair of rows of long bristles along the ventral surface; hind femur with a pair of rows of bristles on the dorsal surface.

Abdomen: Black and silvery gray checkered pattern; genital segments and genitalia as shown in Fig. 1.

Distribution: Japan.

Locality: Mt. Sol-ak, Kangwon-Do, Korea.

Remarks: This species was found on Mt. Sol-ak for the first time, and it has much similarity in the genitalia to *Sarcophaga albiceps*.

Sarcophaga jenzensis which Hori has described as a new species (Special number of Jap. J. Sanit. Zool. vol. iv, p. 298, 1954) is a synonym of *S. sichotealini*.

Anthomyia illocata WALKER, 1856

(Proc. Linn. Soc. Lond., vol. I, p. 129)

Female

Body length: 4—5 mm

Head: Frons about 1/2 width of one eye; frontal vitta black; parafrontals and parafacials yellowish white; frontal bristles 4 pairs; antennae dark brown with length of 3rd segment two times that of 2nd segment; black postocular setae one row; palpi black.

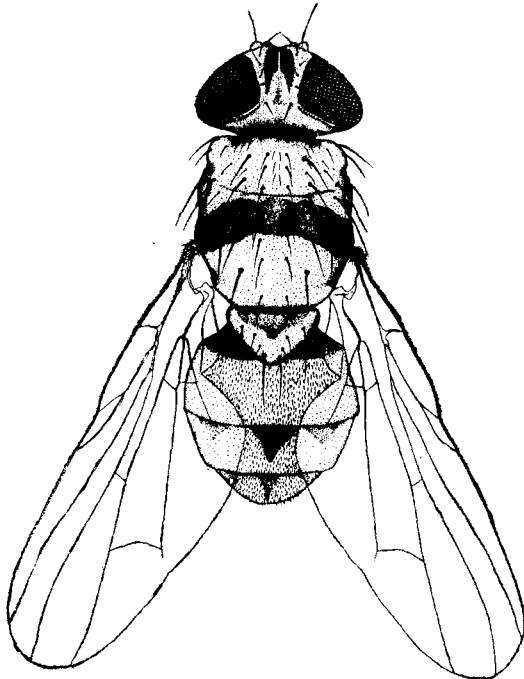


Fig. 2. *Anthomyia illocata* (Female)

Thorax: Scutum with grayish pollen, with brown stripes on part of margins of scutum and scutellum; acrostichal bristles 3+5; dorsocentral bristles 2+3; intra-alar bristles 1+3; posthumeral bristles 2; humeral bristles 2 or 3; post-alar bristles 2; apical scutellar bristles and basal scutellar bristles one pair.

Wings: Hyaline, with yellow veins costal spines short; length of section III of costa a little longer than that of V.

Abdomen: Covered with silvery gray pollen; 3rd and 4th tergites with black markings on central part and both sides; 2nd, 3rd and 4th tergites with marginal bristles.

Localities: Mt. Sol-ak, Mt. Pal-gong.

During the period from 1959 to 1964, the flies collected at Taegu, Gachang, Mt. Pal-gong and Kosangol have been found, upon classification, to include three hitherto unreported species from Korea.

Since the original descriptions for these species are not available, the author describes and reports them in detail.

***Hermyia beezebul* WIEDEMANN, 1830**

(Aus. Zweif. Ins., II, p. 301)

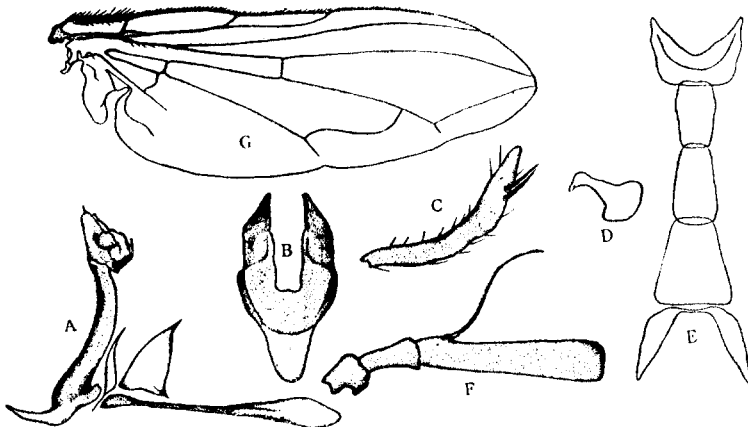
male

Body length: 17 mm

Head: Frons about half width of one eye; frontal vitta black, parafrontals and parafacials golden pollen; parafacials about 3 times the width of face; antennae black, 3rd segment about 5 times as long as 2nd; occiput silvery white with poor black hairs; bucca gray and with numerous whitish hairs; one row of postocular cilia black; palpi black; frontal bristles 5 or 6 pairs.

Thorax: Scutum with three black longitudinal stripes with grayish pollen; preacrostichal bristles 1; postacrostichal bristles 2 (fore one indistinct, hind one very fine and short); predorsocentral bristles 4 and postdorsocentral bristles 3; intra-alar bristles 1+2; supra-alar bristles 3; squamae white.

Wings: Part of each vein black, other part dark gray; r1 bare; r4+5 with 4 short setae located dorsally more than half way from basal node to r-m; ventral side with 4 or 5 short setae on the basal node of r4+5; section III of costa about 1/3 longer than section V; sections I and II of costa with short spines; halter yellowish white, but apex dark brown.

Fig. 3. *Hermyia beezebul*

A: Phallosome and paramere B: Vinculum C: Palpi
D: Ejaculatory apodeme E: Sternites F: Antennae G: Wing

Legs: Black with white pollen on the all femora; fore femur with a pair of rows of moderately long bristles on the dorsal surface; one row of bristles and one row of weak bristles on the ventral surface, fore tibia with 2 long bristles on the ventral surface; mid femur with 4 pairs of long bristles on the anteroventral surface and 2 or 3 pairs of long bristles on the lateral surface; mid tibia with 3 pairs of long bristles each on the lateral surface; hind femur with one row of long bristles on the dorsal surface and one pair of rows of bristles on the ventral surface, hind tibia with 3 pairs of long bristles each on the lateral surface.

Abdomen: Black, with silvery pollen on lateral and central parts; 2 pairs of median marginal bristles each on tergite; 2 pairs of lateral marginal bristles on 2 and 3 tergites; 4 and 5 tergites with posterior marginal bristles; genital segments, phallosome, forceps and 5th sternite as shown in Fig. 3.

Localities: Mt. Pal-gong, Gachang, Mt. Chu-am.

Remarks: This species is mainly found on foliage and flowers growing in ravines and damp spots and has no relation to sanitation. With its generally black appearance including its wings, it makes itself easily distinguished from the other species.

***Servillia luteola* COQUILLET, 1898**

(Proc. Nat. Mus., xxi (1146), p. 329)

Male

Body length: 19 mm

Head: Frons about the 1/3 width of one eye; frontal vitta blackish brown, parafrontals and parafacials yellowish

white; frontal bristles 15 pairs; antennae dark brown, 3rd segment about 3/4 as long as 2nd; bucca yellow; with whitish hairs; bucca about 1/2 eye height; one row of postocular black cilia; metacephalon with numerous long yellowish white hairs; palpi yellow.

Thorax: Black with yellowish pollen and numerous yellowish white hairs; acrostichal bristles 2+2, dorsocentral bristles 5+4, intra-alar bristles 1+3, supra-alar bristles 3, post-alar bristles 3; halter yellowish white; squamae yellowish white.

Wings: Hyaline; r1 bare, r4+5 with 6 setae located dorsally more than half way from node to r-m; ventral side with 10 short setae on the basal node of r4+5; section III of costa about 3 times longer than section V; sections II and III of costa with short spines.

Legs: All femora black, all tibiae light brown; fore femur with a pair of rows of bristles on the dorsal surface, a row of bristles on the posterolateral surface and fore tibia with a pair of rows of bristles on dorsal surface; mid femur with several bristles on the lateral surface; mid tibia with a pair of rows of bristles on the dorsal surface; hind femur with a row of bristles on the dorsal and ventral surfaces, hind tibia with a pair of rows of bristles on the dorsal surface.

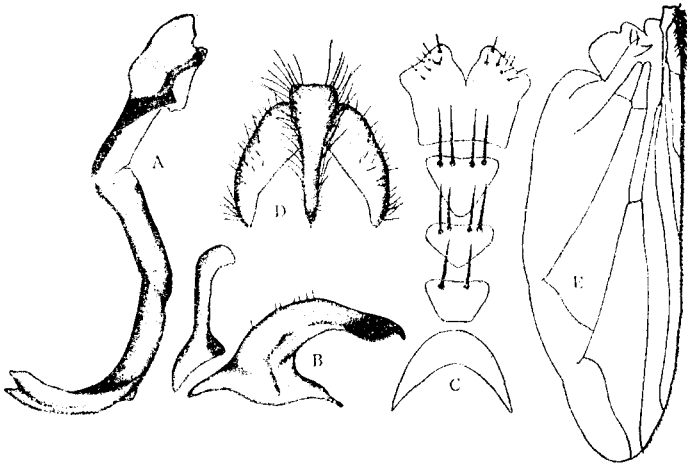


Fig. 4. *Servillia luteola*
A: Phallosome B: Parameres C: Sternites D: Forceps E: Wings

Abdomen: Black, with numerous yellowish long hairs on entire surface (on every tergites); strong marginal bristles on every tergites made an exception of the middle part; genital segment and genitalia as shown in Fig. 4.

Localities: Gachang, Mt. Pal-gong.

Remarks: This species dwells in shaded spots where trees thickly grow, and seems to have no relation to sanitation. Its body is covered with yellowish bristles like bees. It is found in the terrain of relatively high altitude.

Gymnosoma rotundatum LINNE, 1758

(Syst. Nat., x, p. 595)

Male

Body length: 4—5 mm

Head: Frons about half the width of one eye; frontal vitta brown, parafrontals and parafacials with golden pollen; face very wide; antennae black; 3rd segment about 3/4 as long as 2nd; frontal bristles 13 pairs; bucca about 1/3 eye height; metacephalon with numerous white hairs; bucca black with white pollen and with numerous white hairs; a row of postocular cilia present and black; palpi black.

Thorax: Black and with golden pollen, postacrostichal bristles 1; postdorsocentral bristles 1; lateral and basal scutellar bristles 1 each; notopleural bristles 2; supra-alar bristles 2; post-alar bristles 2; squamae yellowish white.

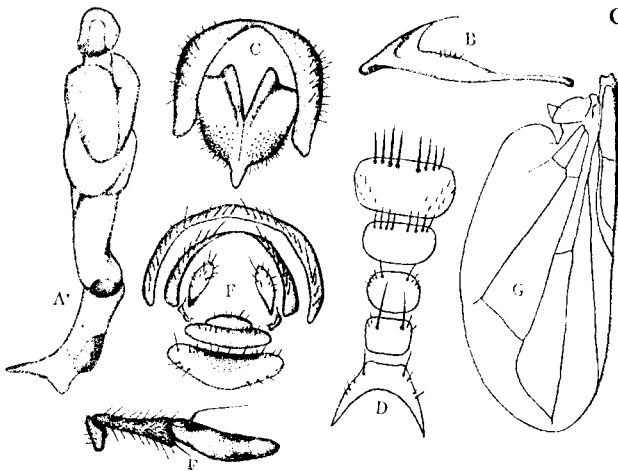


Fig. 5. *Gymnosoma rotundatum*
A: Phallosome B: parameres C: Forceps D: Sternites
E: Antennae F: Genitalia of female G: Wing

Wings: Hyaline; costa brown, r4+5 with one short weak seta on the basal node to r-m; ventral side with one short weak seta on the basal node of r4+5; section III of costa about 1/2 of section V; sections I and II of costa with short spines; halter yellowish white.

Legs: Black; femora with a pair of rows of bristles on the ventral surfaces (bristles of posterior part very fine); tibiae with bristles each on.

Abdomen: Orange pile, with black median longitudinal stripes; posterior part of abdomen black (genital segments); boundaries of tergites indistinct; median and lateral marginal bristles absent; genitalia and forceps as shown in Fig. 5.

Localities: Gachang, Mt. Chu-am.

Remarks: This species is found in grasses growing in the field. Its thorax is characteristically black. Its abdomen is orange and egg-shaped, and each segments not clearly divided but continuous throughout.

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