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Nomura, Shuhei

Lee, Chang Eon

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Silphid Fauna of Chejudo Island, Korea ^{1),2)}

Shûhei NOMURA

Entomologica Laboratory, Faculty of Agriculture, Kyushu University,
Fukuoka 812, Japan

and

Chang Eon LEE

Department of Biology, College of Natural Sciences, Kyungpook National University,
Taegu, 702-701, Korea

Abstract.

The silphids known from Chejudo Island, ten in all are reviewed and *Eusilpha bicolor* is reported for the first time.

Introduction

The silphid fauna of Chejudo Island is well-known since Okamoto (1924). He reported 6 species from Chejudo for the first time. Cho (1957) reviewed Korean Coleoptera and listed 21 silphid species without comment on Cheju fauna. In 1963 he recorded 8 species from this island, in which two species *Nicrophorus concolor* and *Ptomascopus morio* were newly added.¹ Kim (1978) presented the distributions of 15 Korean species with new distribution record of *Eusilpha brunneus* from Cheju. Lee, Kim & Kim (1985) added *Nicrophorus quadripunctatus* to the fauna of this island. Paik (1985) revised the Korean Silphidae and Catopidae with a key to 23 silphid species.

This short report presents a check-list of the silphid fauna of Chejudo from the Korean literature with a new record of *Eusilpha bicolor* on the basis of our own collection.

Family SILPHIDAE

Tribe Nicrophorini

***Nicrophorus japonicus* Harold**

1) Results from the Korea-Japan Co-operative Science Program on "The Evolution and Biogeography of the Insects in the East Asia". No. 7.

2) Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 4, No. 41)

Necrophorus japonicus Harold, 1877, *Deutsch. Ent. Zeitschr.*, 21: 345; Cho, 1957, *Hum. Sci.*, Korea Univ., 2: 32.

Necrophorus japonica: Okamoto, 1924, *Bull Agric. Expt. Stat. Gov. -Gen. Chosen*, 1: 168.

Necrophorus japonicus: Cho, 1963, *Hum. Sci. Korea Univ.*, 6: 46; Seok, 1970, *Ins. Faun. Is. Querpart*: 71; Kim, 1978, *Dist. Atlas Ins. Korea, Col.*, 2: 64; Lee, Kim & Kim, 1985, *Rep. acad. Surv. Hallasan (Mt.) Nat. Pres.*: 403; Paik, 1985, *Corentomon, Suwon*, 1(1): 3.

Distribution. Korea, China, Mongolia, Formosa, Japan.

Necrophorus concolor Kraatz

(Fig. A)

Necrophorus concolor Kraatz, 1877, *Deutsch. ent. Zeitschr.*, 21: 100; Cho, 1957, *Hum. Sci. Korea Univ.*, 2: 33.

Necrophorus concolor: Cho, 1963, *Hum. Sci. Korea Univ.*, 6: 46; Lee, Kim & Kim 1985, *Rep. acad. Surv. Hallasan (Mt.) Nat. Pres.*: 403; Paik, 1985, *Corentomon, Suwon*, 1(1): 4.

Necrophorus concolor: Kim, 1978, *Dist. Atlas Ins. Korea*, 2: 61 (misspelling).

Specimens examined: 2 males, Yongshil, Mt. Hallasan, 27. vii. 1990, S. Nomura leg.

Distribution. Korea, China, Formosa, Japan.

Necrophorus quadripunctatus Kraatz

(Fig. B)

Necrophorus quadripunctatus Kraatz, 1877, *Deutsch. ent. Zeitschr.*, 21: 101.

Necrophorus quadripunctatus: Kim, 1978, *Col., Diit. Atlas Ins. Korea*, 2: 63; Lee, Kim & Kim, 1985, *Rep. acad. Surv. Hallasan (Mt.) Nat. Pres.*: 403; Paik, 1985, *Corentomon, Suwon*, 1(1): 3.

Specimens examined: 1 male 1 female, Kaewol Bridge, Mt. Hallasan, 20. v. 1990, S. Nomura leg; 5 males 2 females, Yongshil, Mt. Hallasan, 27. vii. 1990, S. Nomura leg.

Distribution. Korea, China, Japan.

Ptomascopus morio Kraatz

Ptomaswpus morio Kraatz, 1877, *Deutsch. ent. Zeitschr.*, 21: 104; Cho, 1957, *Hum. Sci. Korea Univ.*, 2: 33; 1963, *Hum. Sci. Korea Univ.*, 6: 47; Kim, 1978, *Col., Dist. Atlas Ins. Korea*, 2: 62; Lee, Kim & Kim, 1985, *Rep. acad. Surv. Hallasan (Mt.) Nat. Pres.*: 403; Paik, 1985, *Corentomon, Suwon*, 1(1): 4.

Distribution. Korea, China, Formosa, Japan.

Tribe Necrodini

Necrodes asiaticus Portevin

(Fig. C)

Necrodes asiaticus Portevin, 1922, *Bull. Mus. Hist. Nat., Paris*, 1922: 507; 1926, *Silph., Encycl. Ent.*, 6: 162; Kim, 1978, *Dist. Atlas Ins. Korea*, 2: 59; Paik, 1985, *Corentomon, Suwon*, 1(1): 3.

Necrodes littoralis: Okamoto, 1924 (*nec. Linnaeus, 1758*), *Bull Agric. Expt. Stat. Gov. -Gen. Chosen*, 1:

168.

Specimens **examined**: 1 male, Cheju Junior College, Cheju City, 19. v. 1990, S. Nomura leg.; 2 males 8 females, Kaewol Bridge, Mt. Hallasan, 23. vii. 1990, S. Nomura leg.; 1 male 2 females, same locality as above, 26. vii. 1990, S. Nomura leg.

Distribution. Korea China, Tibet, Mongolia, **Sibelia**, India, Japan.

Tribe **Silphini**

***Thanatophilus sinuatus* (Fabricius)**

Silpha sinuatus Fabricius, 1775, Syst. Ent.: 75; Cho, 1957, Hum. Sci. Korea Univ., 2: 31.

Pseudoperta sinuata: Okamoto, 1924, Bull Agric. Expt. Stat. Gov. -Gen. Chosen, 1: 168.

Silpha auripilosa: Cho, 1957 (**nec. Portevin, 1926**), Hum. Sci. Korea Univ., 2, 1. c.: 31; 1963, Hum. Sci. Korea Univ., 6: 47; Seok, 1970, Ins. Faun. Is. Querpart: 71; Lee, Kim & Kim, 1985, Rep. acad. Sw. **Hallasan** (Mt.) Nat. Pres.: 403.

Thanatophilus auripilosus: Kim, 1978, Dist. Atlas Ins. Korea, 2: 55.

Thanatophilus sinuatus: Paik, 1985, Corentomon, Suwon, 1(1): 3

Distribution. Korea, China, Siberia, Central Asia, Europe, North Africa, Japan.

***Thanatophilus rugosus* (Linnaeus)**

Silpha rugosa Linnaeus, 1758, Syst. Nat., 10th ed.: 361.

Pseudopelta rugosa: Okamoto, 1924, Bull Agric. Expt. Stat. Gov. -Gen. Chosen, 1: 169.

Silpha subrugosa: Cho, 1957 (**nec. Portevin, 1926**), Hum. Sci. Korea Univ., 2: 32; 1963, Hum. Sci. Korea Univ., 6: 46; Seok, 1970, Ins. Faun. Is. Querpart: 71; Lee, Kim & Kim, 1985, Rep. acad. Surv. **Hallasan** (Mt.) Nat. Pres.: 403.

Thanatophilus subrugosus: Kim, 1978, Dist. Atlas Ins. Korea, 2: 56.

Thanatophilus rugosus: Paik, 1985, Corentomon, Suwon, 1(1): 3

Distribution. Korea, China, Central Asia, Europe, Northern Africa, Siberia, Himaraya, Japan.

***Silpha perforata* Gebler**

(Fig. D)

Silpha perforata Gebler, 1832, Nouv. Mtm, **Mosc.**: 41; Cho, 1957, Hum. Sci. Korea Univ., 2: 31; 1963, Hum. Sci. Korea Univ., 6, 46; Seok, 1970, Ins. Faun. Is. Querpart: 71; Kim, 1978, Dist. Atlas Ins. Korea, 2: 54; Lee, Kim & Kim, 1985, Rep. acad. Surv. **Hallasan** (Mt.) Nat. Pres.: 403; Paik, 1985, Corentomon, Suwon, 1(1): 3.

Parasilpha perforata: Okamoto, 1924, Bull. Agric. Expt. Stat. Gov. -Gen. Chosen, 1: 168.

Remarks. This species is divided into five subspecies by Portevin (1926) and the other authors. But we cannot determine the specimen collected from Mt. **Hallasan** into subspecies because of its bad **condition** as shown in the **figure D**.

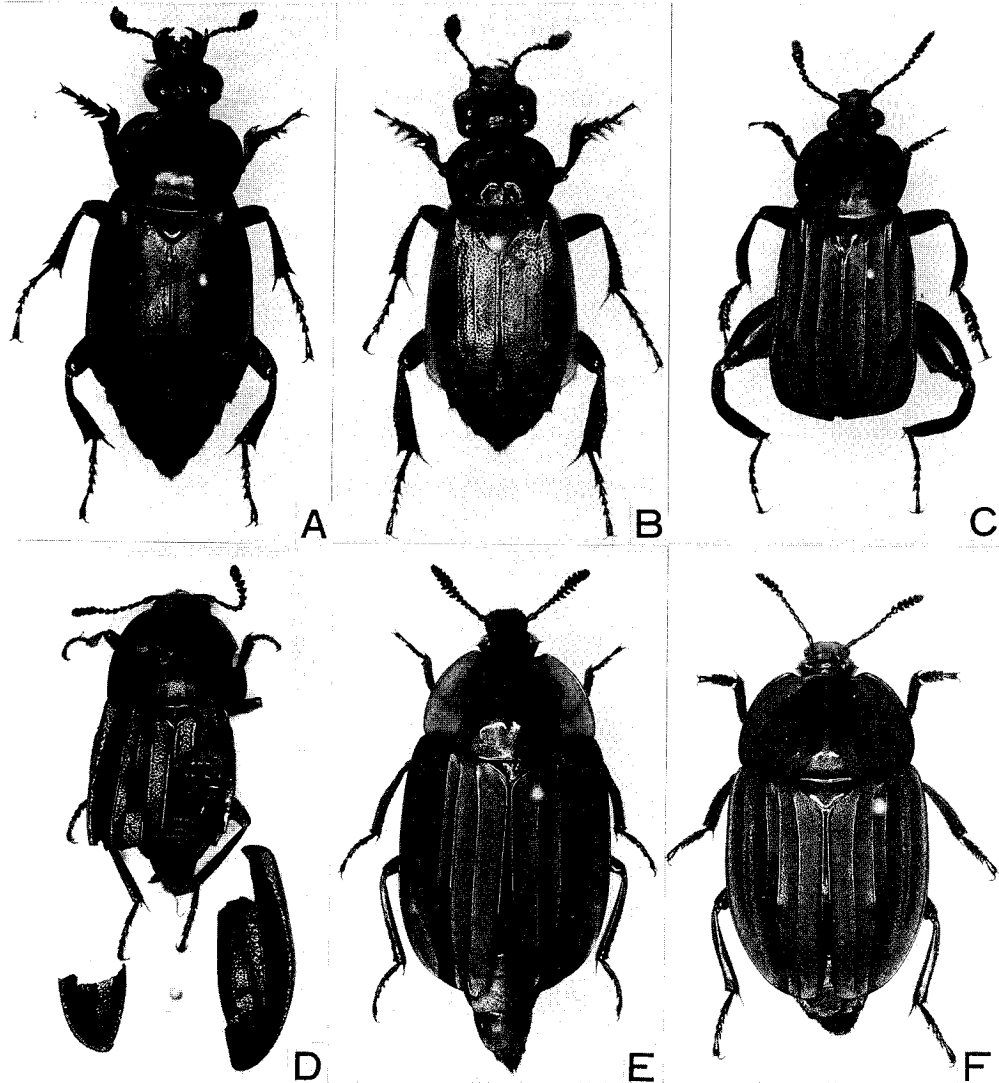
Specimens **examined**: 1 female, Mt. **Hallasan**, 25. vii. 1990, S. Nomura leg.

Distribution. Korea, China, Mongolia, Siberia, Japan (Hokkaido).

Eusilpha (Calosilpha) bicolor bicolor (Fairmaire)

(Fig. E)

Silpha bicolor Fairmaire, 1899. Ann. Soc. ent. Fr., 68: 616; Paik, 1985, Corentomon, Suwon, 1(1): 3.



Figures A-F. Dorsal aspects of the silphids collected from Chejudo Is. A, *Nicrophorus concolor* Kraatz; B, *N. quadripunctatus* Kraatz; C, *Necrodes asiaticus* Portevin; D, *Silpha perforata* Gebler; E, *Eusilpha (Calosilpha) bicolor bicolor* (Fairmaire); F, *E. (E.) jacowlewii* (Semenow).

Silpha biwlor bicolor : Niiawa, 1986, Ent. Pap. pres. Kurosawa, Tokyo: 153.

Remarks. This species is recorded from Chejudo Island for the first time. The nominotypical sub-species known from Korean peninsula is separated from the subsp. *imasakai* from Japan by the strongly narrowed pronotum towards apex in both sexes and the less dilated third to fifth **antennal** segments in the female after Niihikawa (1986).

Specimens **examined**: 1 female, Kaewol Bridge, Mt. Hallasan, 26. vii. 1990, S. Nomura leg.; 4 females, Yongshil, Mt. Hallasan, 27. vii. 1990, S. Nomura leg.

Distribution. Korea, China, Tibet, Japan.

Eusilpha (Calosilpha) brunneicollis (Kraatz)

Silpha brunneicollis Kraatz, 1877. Deutsch. ent. Zeitschr., 21: 106.

Calosilpha brunneicollis : Cho, 1957, Hum. Sci. Korea Univ., 2 (**nec**, Portevin, 1926): 32; Kim, 1978, Dist. Atlas Ins. Korea, 2; 52.

Eusilpha brunneicollis : Paik, 1985, Corentomon, Suwon, 1(1): 3.

Distribution. Korea, Formosa?, Japan.

Eusilpha (Eusilpha) jakowlewi (Semenow)

(Fig. F)

Silpha jakowlewi Semenow, 1891, **Horae, Soc. Ent. Ross.** 25: 229; Paik, 1985, Corentomon, Suwon, 1(1): 3; Cho & Lee, 1986b, Nature and Life, 16 (2): 19.

Silpha japonica : Cho, 1957, Hum. Sci. Korea Univ., 2 (**nec. Motschulsky**, 1860) : 203; 1963, Hum. Sci. Korea Univ., 6: 46; Lee, Kim & Kim, 1985, Rep. acad. Surv. Hallasan (Mt.) Nat. Pres.: 403.

Pseudopelta japonica : Okamoto, 1924, **Bull Agric. Expt. Stat. Gov. -Gen.** Chosen, 1: 169.

Eusilpha japonica : Kim, 1978, Dist. Atlas Ins. Korea, 2: 57.

Specimens **examined**: 4 males 10 females, Ora-dong, Cheju City, 21. v. 1990, S. Nomura leg.; 1 male, same locality as above, 23. v. 1990, S. Nomura leg.

Distribution. Korea, Mongolia, Japan (Tsushima Is.).

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