A Preliminary List of Stathmopodidae, Batrachedridae, Blastodacnidae and Cosmopterigidae (Lepidoptera: Gelechiidae) of the Korean Peninsula

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ABSTRACT An annotated list of 33 species belonging to the families Stathmopodidae (7 including 2 unrecorded species), Batrachedridae (a new species: Batrachedra koreana sp. n.), Blastodacnidae (3 including an unrecorded species), and Cosmopterigidae (22 species) from the Korean peninsula is given. For Cosmopterigidae, continuing from the previous article (Park, 1994), 2 species (Cosmopterix bichromella sp. n. and Labdia antenella sp. n.) are described as new and 2 species are newly added to the fauna, and all available informations on host plant of larva with a list of all known species in Korea are provided.

KEY WORDS Lepidoptera, Stathmopodidae, Batrachedridae, Blastodacnidae, Cosmopterigidae, systematics, Korea

초록 최근 발표된(朴 1994) 장날개흡나방과의 속급표적나방하에 이어 한국산 감독자나방과 7종(2종신종류), Batrachedridae 1종(新種記載), Blastodacnidae 3종(1종新種説)을 정리하였으며, 장날개흡나방과 2종을 새로운 종으로 보고함과 동시에 2종新種을 정리 발표한다. 기존으로 알려진 종들에 대해서는 전체목록을 위해 새생장에 관한 제정을 추가하여 삼입하였다. 처음 소개되는 상기 2종의 우리말 이름은 아직 동물학자들의 분류체계에 관한 깊이의 크로로 새로운 분류체계가 정립되는데로 수후 푸이기로 한다.

검색어 나비류, 감독자나방과, 장날개흡나방과, 분류, 한국

This is the first list of species of the families Stathmopodidae, Batrachedridae, Blastodacnidae and Cosmopterigidae for the Korean peninsula as a whole. Only few faunistic data were previously presented in the “Illustrated Flora & Fauna of Korea” (Park 1983a) and “Insecta Koreana” (Park 1983b), and some other recent additional records (Park 1986, 1994) have been represented. On the other hand, the fauna of adjacent territories of Russia has been better studied with more than 150 species of the families in the southern part of Primorye region (Sinev 1979, 1981, 1985a, 1985b, 1986, 1988a, 1988b, 1988c, 1991, 1993a, 1993b).

The systematic positions of the families included in this article have not been well clarified, and the general status of them is as following:

Family Stathmopodidae. The systematic position of the family Stathmopodidae has been confused, placing in different ranks by previous different authors: Common (1970), Bradely (1972), Kuznetsov & Stekolnikov (1984), Minet (1990) and Sinev (1992) ranked it at the level of family, on the other hand Nielson & Common (1991) and Hodges (in press) treated it as a subfamily of Oecophoridae.

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Five species have been known from the southern part of the Korean peninsula (S. Korea) and two additional species are added to the fauna from N. Korea.

**Family Batrachedridae.** The family was treated as a subfamily of Morphidae (Bradely 1972) or of Coleophoridae (Hodges 1978), but it has generally been placed at the rank of family by recent authors (Kuznetsov & Stekoľnikov 1984, Minet 1990, Nielson & Common 1991 and Sinev 1992). The family is known for the first time from Korea.

**Family Blastodacnidae.** The family has been considered as a subfamily of Coleophoridae (Hodges 1978) of Agonoxenidae (Kuznetsov & Stekoľnikov 1984), and also some recent authors (Minet 1990, Nielson & Common 1991, Sinev 1992) treated it as a family. On the other hand, however, Hodges (in press) suggested that the family name is nomenclaturally invalid and it is a synonym of Parametriotinae Capuse, Elachistidae. In the previous article, the second author (1994) erroneously placed two species: Blastodacna pyrigalla (Yang) and Trachydrora ussureilla Sinev, in the family Morphidae, but they should be included in the family Blastodacnidae for the time being, according to the recently revised systematic position for the family.

**Family Cosmopterigidae.** Most of recent authors (Kuznetsov & Stekoľnikov 1984, Minet 1990, Nielson & Common 1991, Sinev 1992) considered this taxa to be a family rank, even some previous authors (Bradely 1972, Zimmerman 1978) treated it as a subfamily. The family is divided into two subfamilies; Antequinerinae Hodges, 1978 and Cosmopteriginae Heinemann, 1876. Recently the second author reviewed 18 species from the Korean peninsula. Here we add two newly reported species and describe two species as new, with a list of previously reported species.

All available information on host of larvae and their distributional ranges which have been known previously or surveyed recently by the authors, are provided. Materials examined in the present article were obtained by the field works of Korean collectors in South Korea during 1974-1990 (specimens are in the collection of Center for Insect Systematics (CIS), Kangwon National University, and of Zoological Institute of the Russian Academy of Sciences (ZIRAS), Russia), and by the expeditions of Hungarian collectors to the North Korea in 1975-1985 (specimens are in the collections of Hungarian Museum of Natural History, Budapest). All types are tentatively deposited in ZIRAS. An asterisk (*) before the specific name means that species is new for the Korean peninsula.

**Family Stathmopodidae (감복지나방과)**

**Stathmopoda auriferella** (Walker)


Stathmopoda divisa Walsingham, 1891, Trans. Ent Soc. London: 121. tab. 6, fig. 61.


Stathmopoda crocophanes Meyrick, 1897, Proc. Linn. Soc. N. S. Wales, 22: 324


**Distribution.** Korea (S, N), Japan, Taiwan, China, Vietnam, Philippines, India, Pakistan, Israel, Africa, Australia.

**Biology.** Larva feeds on dead leaves, mainly generative parts of various kinds of plants: Citrus, Zizyphus, Tristania, Sorghum, Ceratonia, Helianthus, and etc.

*Stathmopoda flavescens* Kuznetsov

노랑복지나방(신长江)

**Material.** N. Korea: 1♀, Mt. Kumsang-san, GW, 23. VII. 1982 (Forró & Tópál).

**Distribution.** Korea (N), Russian Far East (Primorye).

**Biology.** Unknown.

**Stathmopoda haematosema** Meyrick

달다리목지나방


**Distribution.** Korea (S), Japan.

**Biology.** Unknown

**Stathmopoda masinissa** Meyrick

간쪽지나방


**Locality.** S. Korea: Milyang, GN; Kimhae, GN (Park, 1983b).

**Distribution.** Korea (S), Japan, Taiwan, China.

**Biology.** Larva feeds on the flower pods and fruits of Diospyros kaki Thunberg (Ebenaceae), and is one of serious pest on persimmon in Korea.

**Stathmopoda opticaspis** Meyrick

이끼목지나방


**Distribution.** Korea, Japan, China, Russian Far East (Primorye).

**Biology.** The larva feeds on *Prunus serrulata* var. spontanea (Max.) Wils. (Rosaceae, Prunoideae).

**Stathmopoda stimulata** Meyrick

에가목지나방(신평)

*Stathmopoda stimulata* Meyrick, 1913, Exot. Microlepid., 1: 84.

**Material.** N. Korea: 1♀, 2♀, Mt. Kumsang-san, GW, 24-25. VII. 1982 (Forró & Ronkay).

**Distribution.** Korea (N), China, India, Sri Lanka.

**Biology.** Unknown.

**Atkinsonia ignipicta** (Butler)

붉은꼬마목지나방


**Material.** S. Korea: 1♀, Gwangneung, GG, 3 IX. 1982 (J. D. Park).

**Distribution.** Korea (S), Japan, China, Vietnam.

**Biology.** Larva feeds on scale-insects in the heads of *Sasa* (Poaceae, Barnsbusoideae).

**Family Batrachedridae**

**Batrachedra koreana** Sinev et Park, sp. nov.

배두뿔나방(신천)

Very similar externally with *B. albicapitella* Sin. from Russian Far East, but head and thorax yellowish ochreous, not greyish white. In male genitalia it differs from the latter by more straight and narrow uncus, very short valvellae, and valvae without distinct ventrocaudal angle.

Wing expanse 11.5 mm. Head pale ochreous yellow; forewings whitish, shining. Antennae brownish ochreous, somewhat lighter at base. Labial palpi brownish ochreous Thorax and tegulae ochreous yellow. Forewings yellowish with purely yellow apex, and with slight brownish-fuscous dusting which is more expressed through the margins of the wing, especially at the distal third and at the base of costa. All pattern consists of a small blackish-fuscous dot at the 3/4 near the end of discal cell and a very short blackish longitudinal dash at the 1/3 in anal fold. Cilia greyish fuscous, only a little part at the apex of wing yellow. Hindwings and cilia more or less unicolour, pale fuscous.

**Male genitalia** (Fig. 1). Uncus about equal length of tegumen, slightly arched and shortly pointed at apex. Tegumen large, its lateral ventral processes broad. Gnathos with very narrow sclerotized lateral arms and flattened mediolateral part bearing relatively long spines. Valvae slightly broadened before apex, length about four times as much as width; ventrocaudal angles smooth, saccus not free. Valvellae
small, shortly digitate, with minute hairs at apex. Juxta indistinct. Aedeagus slender, somewhat S-shape, with length twice as much as width; comutus absent.


**Biology.** Unknown.

**Diagnosis.** This is a new report for the species of the family Batrachedridae

**Family Blastodacnidae**

*Blastodacna pyrigalla* (Yang)

Beokpulnae

Larva is a gall maker on the twigs of *Pyrus serotina* Rehder, *Prunus persica* (L.) Batsch (Rosaceae, Prunoideae), and *Diospyros kaki* Thunberg (Ebenaceae).

*Trachydraussuriella* Sinev

우수리숙막이排污

Larva is a twig borer on *Lespedeza bicolor* Turcz. (Papilionaceae).

*Microcolona aurantiella* Sinev

산죽막이排污(신청)


**Material.** N Korea: 1 ♀, Mt. Myohyang-san, NP, 18. VII. 1982 (Forro & Ronkay).

**Distribution.** Korea (N), Russian Far East (Primorye).

**Biology.** Unknown.

**Family Cosmopterigidae**

**Subfamily Anteerinae**

*Pancalia hexachrysa* (Meyrick)

은빛줄무늬排污

*Pancalia isshikii* Mats.

화나무줄무늬排污


*Pancalia latreillella* Curtis.

산골줄무늬排污

Larva mines in the petioles at the early stage and later in the root-stocks of *Viola canina* and *V. hirta* (Violaceae).

**Subfamily Cosmopteriginae**

*Cosmopterix attenuata* (Walker)

들장Flush매排污(신청)


**Material.** N Korea: 1 ♀, Kaesong, 29. VII. 1982 (Forro & Ronkay).

**Distribution.** West India, U.S.A (Florida, Texas), Guyana, Seychelles, Borneo, Fiji, New Guinea, St. Helena (*flavofasciata* Woll.), Marquesas Archipel, Vietnam (*melanarches* Meyr.), Australia (*mimetis* Meyr.).

**Remarks.** All records from South Europe, North Africa, Caucasus and Central Asia belong to *Cosmopterix crassicornella* Chret.

**Biology.** The larva is a leaf miner on flat-sedges, *Cyperus* spp. (Cyperaceae).

*Cosmopterix rhynchognathosella* Sinev

무네장Flush排污(신청)

*Cosmopterix rhynchognathosella* Sinev, 1985,
Material. N. Korea: 1♀, Mt. Kumgang-san, near Ondjong, GW, 6. VIII. 1975 (Papp & Vojnits)


Biology. Unknown

Cosmopterix bichromella Sinev et Park, sp. nov. 창탈개개류나방(신장)

Rather similar superficially with C. gracilis Sinev, but forewings more dark, chocolate. It differs from the majority of other Cosmopterix-species by the narrow valvae without pronounced dorsocaudal and ventrocaudal angles.

Wing expanse 10 mm. Head dark fuscous on vertex, with silvery-white longitudinal lines above the eyes and with same narrow medial streak. Antennae fuscous, in distal half with light yellowish-white annulation; four apical joints light, next five fuscous, then alternate each other, and next 6-7 joints with light basally and dark at tips; basal half of antennae without light annulation, but with longitudinal white line anteriorly. Tegulae dark fuscous in the middle, with silvery-white scales edged on outer and inner margins. Mesonotum dark fuscous with narrow white medial streak. Forewings chocolate, with rather broad medial fusc and rounded subapical orange-yellow spot. Basal dark area with three narrow silvery-white streaks: one subcostal and two parapical. Subcostal streak runs obliquely from the base of wing and blindly terminates at 2/3 of basal area; parapical streaks commonly originating from beginning of anal plica, then run through both sides of plica and terminate together at the tip of the projection of medial fascia. Inner silvery fascia separates into two approximately equal spots; by the projection of medial fascia anterior spot large, blackish-fuscous on the margin turned to the medial fascia, and posterior one minute, fuscous. White narrow streak lies on costa from inner silvery fascia to 1/2 of basal dark area. Medial fascia with small groups of fuscous scales both ends of the straight outer border. Outer silvery fascia continuous, transforms into distinct costal and indistinct dorsal white spots on cilia. Apical dark area obviously paler than basal one, greyish fuscous; all its central part opposite outer silvery fuscia occupied by large oval orange-yellow spot. Bright snow-white line runs along termen from the margin of subapical spot to the extremity of wing. Cilia pale greyish fuscous, somewhat darker on costa. Hindwings whitish grey at the base, gradually darker toward apex; cilia pale grey.

Male genitalia (Fig. 2). Right arm of gnathos massive, S-shape, with large dorsal dilation before apex and a small beaklike projection at apex; left arm strongly reduced. Valvae narrow at base, somewhat gently arched, slightly broadened distally with rounded apex; both dorsocaudal and ventrocaudal angles absent. Valvulae symmetrical, very long and thin, slightly broadened in apical third with hairs along lateral margin Aedeagus rather narrow, pear-shape, apically pointed; its length (without caecum) less than 2/3 length of valvae. Caecum shorter than 1/2 length of aedeagus properly.


Biology. Unknown

Labdia antennella Sinev et Park, sp. nov. 그늘상날개개류나방(신장)

Rather similar to L. niphosticta Meyrick in general coloration, but dull forewings and distinct thickness of black scales at the base of male antennae are characteristic.

Wing expanse 10 mm. Head yellowish white on the frons and fuscous on the occiput and hind part of vertex. Antennae yellowish white, with slight bend (male) at the base of flagellum covered by soothing black rumpling scales ventrally; basal joint bears api-

Fig. 2. Male genitalia of Cosmopterix bichromella sp. n.
cal tuft of long fuscous scales. Labial palpi yellowish white; 3rd joint dark fuscous, except base. Thorax blackish fuscous; tegulae somewhat lighter, shining. Forewing dull blackish fuscous with clearly white markings: narrow basal transverse fascia between 1/4 and 1/3, and two small triangular spots immediately beyond 1/2 of costa and near 2/3 of termen. Cilia blackish fuscous with small white piece at apex of wing. Hindwings dark fuscous; cilia somewhat lighter.

**Male genitalia (Fig. 3).** Right arm of gnathos massive, more or less straight and uniformly narrowing to the pointed and sclerotized apex; left arm shortly digitated, with minute hairs apically. Tegumen with large excavation anteriorly. Valvae long, consist of short and narrow basal part (pedicellum), and archly curved and long dense hairy distal part (cucullus); cucullus about three times as much as pedicellum by length, and almost four times as much as the latter by width. Left valvella slender, digitated, somewhat thickened distally, with short hairs at apex and on ventral edge; right valvella absent. Aedeagus narrowly cylindrical, slightly broadened at the base; caecum small, poorly differentiated.

**Holotype.** ♀ (gen. prep 0125/Sinev), with the label: "Chunchon, S. Korea, 20. VII 1987, K. T Park et U. Park".

**Biology.** Unknown.

**Cosmopterix fulminella Stringer**

다방달개 ula나방

Larva is a leaf miner on *Arundinaria hirta* (Thunb.) Tanaka (Poaceae).

**Cosmopterix gracillima Sinev**

심대방달개 ula나방

Larva is a leaf miner on *Arundinaria hirta* (Thunb.) Tanaka (Poaceae).

**Cosmopterix infundibulella Sinev**

반도방달개 ula나방

**Cosmopterix kurokoi Sinev**

폭자방달개 ula나방

**Cosmopterix lieniella (Zeller)**

갈대방달개 ula나방

Larva is a leaf miner on *Phragmites communis* Trin. and *Ph. longivalvis* Steudel. (Poaceae).

**Cosmopterix schmidleri (Frey)**

나물방달개 ula나방

Larva is a leaf miner on *Vicia sepium* L., *V. pisi-formis, V. unijuga* A. Br., *V. amoenus* Fisch., *Lathyrus vernus*, *L. niger*, *L. macrorhizus* (=*Orobus tuberosus*), *L. davidii* Hance (Papilionaceae).

**Cosmopterix victor (Stringer)**

이대방달개 ula나방

Larva is a leaf miner on *Sasa purpurascens*, *S. japonica* (S. et Z.), *Arundinaria pygmaea* (Miq.) Asch et Graebn., and *Phyllostachys bambusoides* S. et Z. (Poaceae, Bambusoideae).

**Cosmopterix ziegleri (Hbn.)**

설모창달개 ula나방

Larva is a leaf miner on *Humulus lupulus* L., *H. japonicus* S. et Z. (Moraceae), and *Boehmeria nipponica* Koidz (Urticaceae).

**Anatracystis japonica Kuroko**

재료방달개 ula나방

Larva feeds on the damaged fruits of persimmon, damaged cotton-bolls and bags of bagworm.

**Labdia bicorelloa (Snellen), comb. n.**

빛장아방달개 ula나방

**Labdia issikii Kuroko**

여업방달개 ula나방

**Labdia niphosicta (Meyrick)**

 إليه방달개 ula나방

**Labdia semicoccinea (Stainton)**

씨대방달개 ula나방

Larva probably feeds on vegetable refuse.

**Ressia quercidentella Sinev**

황금박이방달개 ula나방

Larva probably associates with *Quercus dentata*. 

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**Fig. 3. Male genitalia of *Labdia antennella* sp. n.**
Thunb. (Fagaceae).

*Limnaecia phragmitella* Stainton
콘찰날개леп나방

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